SPECIAL PROVISIONS
&
SUPPLEMENTAL SPECIFICATIONS

CSI-Inch/Pound

Project No:	**STP-0091(25)0**
Name:	**SR-91; M.P. 0.3 to M.P. 3.5**
	Replace Substandard Guardrail
County:	**BOX ELDER**
Bid Opening:	**November 22, 2005**
	Date

2005 - U.S. Standard Units (Inch-Pound Units) September 12, 2005

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Federal Projects With 8 ½ x 11 Plan Sheets

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I. 2005 Standard Specifications

The State of Utah Standard Specifications for Road and Bridge Construction, U.S. Standard Units (Inch Pound Units), Edition of 2005 applies on this project as a static Specification Book as well as all other applicable specification changes.

Refer Part XVII (Special Provisions and Supplemental Specifications) for other project specific specifications.

II. List of Revised Standard Drawings

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Revised February 24, 2005

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Change Two

Revised April 28, 2005

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CC 9B	Grading And Installation Details Crash Cushion Type H (Parabolic Flare)	04/28/2005
DD 4	Geometric Design for Freeways (Roadway)	04/28/2005
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SL 12	Traffic Counting Loop Detector Details	04/28/2005
SL 13	Video Detection Camera Mount	04/28/2005
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Change Three

Revised June 30, 2005

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Revised August 25, 2005

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III. Materials Minimum Sampling and Testing

Follow the requirements of the Current Materials Minimum Sampling and Testing Manual:

Materials Minimum Sampling and Testing Manual reference can be found from the UDOT Web Site at:
http://www.udot.utah.gov/index.php/m=c/tid=645

NOTICE TO CONTRACTORS

Sealed proposals will be received by the Utah Department of Transportation UDOT/DPS Building (4th Floor), 4501 South 2700 West, Salt Lake City, Utah. 84114-8220, until 2 o'clock p.m. Tuesday, November 22, 2005, and at that time the download process of bids from the USERTrust Vault to UDOT will begin, with the public opening of bids scheduled at 2:30 for Replace Substandard Guardrail of SR-91; M.P. 0.3 to M.P. 3.5 in BOX ELDER County, the same being identified as Federal Aid Project No: STP-0091(25)0.

Federal Regulations:
In conformity with the Federal-Aid Highway Act of 1968, the U.S. Department of Labor has certified the minimum wage rates to be paid on this contract. These rates are made a part of the contract documents. This Department has been advised by the Wage and Hour Division, U.S. Department of Labor, that contractors engaged in highway construction work are required to meet the provisions of the Fair Labor Standards Act of 1938, (52 Stat. 1060). This contract is subject to all appropriate Federal Laws, including Title VI of the Civil Rights Act of 1964.

Project Location: 3.2 Miles of Route: SR-91 from R.P. 0.3 to R.P. 3.5

The principal items of work are as follows (for all items of work see attachment):
W-Beam Guardrail with Redwood Plank
W-Beam Guardrail
Traffic Control

The project is to be completed: in 30 Calendar Days.

Other Requirements:
All project bidding information, including Specifications and Plans, can be viewed, downloaded, and printed from UDOT's Project Development Construction Bid Opening Information website, http://www.udot.utah.gov/index.php/m=c/tid=319. To bid on UDOT projects, bidders must use UDOT's Electronic Bid System (EBS). The EBS software and EBS training schedules are also available on this website.

Project information can also be reviewed at the main office in Salt Lake City, its Region offices, and its District offices in Price, Richfield, and Cedar City.

Project Plans cannot be downloaded or printed from the website unless your company is registered with UDOT. Go to UDOT's website to register. Unregistered companies may obtain a **CD**, that contains the Specifications and Plans, from the main office, 4501 South 2700 West, Salt Lake City, (801) 965-4346, for a fee of $20.00, plus tax and mail charge, if applicable, none of which will be refunded.

As required, a contractor's license must be obtained from the Utah Department of Commerce.

Each bidder must submit an electronic bid bond from an approved surety company using UDOT's Electronic Bid System (EBS); or in lieu thereof, cash, certified check, or cashier's check for not less than 5% of the total amount of the bid, made payable to the Utah Department of Transportation, showing evidence of good faith and a guarantee that if awarded the contract, the bidder will execute the contract and furnish the contract bonds as required.

The right to reject any or all bids is reserved.

If you need an accommodation under the Americans with Disabilities Act, contact the Construction Division at (801) 965-4346. Please allow three working days.

Additional information may be secured at the office of the Utah Department of Transportation, (801) 965-4346.

Dated this 29th day of October, 2005.

UTAH DEPARTMENT OF TRANSPORTATION
John R. Njord, Director

Revised Date:

Utah Department of Transportation
Bidder's Schedule

Bid Opening Date: 11/22/2005
Region: REGION 1
Project Number: STP-0091(25)0
County: BOX ELDER
Project Name: SR-91; M.P. 0.3 to M.P. 3.5
Concept: Replace Substandard Guardrail
Funding: FEDERAL
Bid Items Version#: 1
DBE Goal: 0.00%

#	Item	Description	Quantity	Unit
10 - ROADWAY				
1	012850010	Mobilization	1	lump sum
2	01315001*	Public Information Services	1	lump sum
3	01554000P	Traffic Control	1	lump sum
4	02221007P	Remove Guardrail	6870	foot
5	02610007*	12 inch Corrugated Steel Pipe Culvert, Class C	40	foot
6	02612000*	Concrete Pipe Inlet	4	each
7	02612002*	Clean Catch Basins	2	each
8	02612003*	Culvert End Sections 12 Inch	2	each
9	02612004*	Catch Basin - Contingency Item	2	each
10	02721007*	Untreated Base Course (shoulder dressing) 3/4 inch or 1 inch Max	600	ton
11	02771003P	Concrete Curb	445	foot
12	02772000*	Pothole Patching	600	square foot
13	02787000*	Asphalt Slurry Seal Coat	2550	square yard
14	02841001P	W-Beam Guardrail	2800	foot
15	02841002P	W-Beam Guardrail with Redwood Plank	4075	foot
16	028410030	W-Beam Guardrail Transition Element	2	each
17	028410090	W-Beam Guardrail Anchor Type 1	2	each
30 - LANDSCAPING				
18	02373001P	Loose Riprap	12	cubic yard
19	023760010	Erosion Control Blanket	300	square yard
20	02911001P	Wood Fiber Mulch	5	1000 square fee
21	029120010	Contractor Furnished Topsoil	560	square yard
22	029220040	Broadcast Seed	5	1000 square fee

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

October 5, 2005

Measurement and Payment
Project #STP-0091(25)0

1	**012850010**	**Mobilization**	**Lump sum**
	Payment	**Amount Paid**	**When Paid**
	First	The lesser of 25% of Mobilization or 2.5% of contract	With first estimate
	Second	The lesser of 25% of Mobilization or 2.5% of contract	With estimate following completion of 5% of contract
	Third	The lesser of 25% of Mobilization or 2.5% of contract	With estimate following completion of 10% of contract
	Fourth	The lesser of 25% of Mobilization or 2.5% of contract	With estimate following completion of 20% of contract
	Final	Amount bid in excess of 10% of contract price.	Project Acceptance-Final

2	**01315001***	**Public Information Services**	**Lump Sum**
	Payment	**Amount Paid**	**When Paid**
	First	25% of bid item amount	With first estimate
	Second	Remaining portion of bid item paid as a percentage of the contract completed	With each estimate

3	**01554000P**	**Traffic Control**	**Lump Sum**
	Payment	**Amount Paid**	**When Paid**
	First	25% of the bid item amount	With first estimate
	Second	Remaining portion of bid item paid as a percentage of the contract completed	With each estimate
Item includes variable message boards.			

4	**02221007P**	**Remove Guardrail**	**Feet**
Includes posts, transition elements, and anchorages. Do not remove crash cushions or new guardrail placed in previous project.			

5	**02610007***	**12 inch Corrugated Steel Pipe Culvert, Class C**	**Feet**
Measured along the centerline of barrel in place. Includes removal and disposal of existing pipe.			

6	**02612000***	**Concrete Pipe Inlet**	**Each**
In place. Includes cost of all materials, equipment and labor (may require handwork) required to construct a complete concrete pipe inlet structure. Includes removal and disposal of existing concrete pipe inlet and all debris. Includes clearing and removing any debris at existing outlet structures that is obstructing flow. Includes cost of untreated base course and concrete.			

7	**02612002***	**Clean Catch Basins**	**Each**
In place. Includes removal of all debris removed from catch basins and pipes. Includes cleaning catch basin and inlet/outlet pipes at each location to allow drainage to flow freely through inlets and pipes.			

8	**02612003***	**Culvert End Sections 12 Inch**	**Each**
In place			

9	**02612004***	**Catch Basin – Contingent Item**	**Each**
Includes the cost of concrete, reinforcing steel, frames, grates, and manhole steps. Measurement: A. Department will make no separate payment for excavation for structures. B. Department will not make allowances for extra reinforcing steel required to provide lap splices that are requested by the Contractor. C. Department will not make allowances for clips, chairs, wire, or other materials used for fastening reinforcement in place.			

10	**02721007***	**Untreated Base Course (shoulder dressing) 3/4 inch or 1 inch Max**	**Ton**
In place			

11	**02771003P**	**Concrete Curb**	**Feet**
Measured along the curb face. Includes all labor (may require handwork), equipment and materials necessary to construct new concrete curb. Includes excavation and untreated base course. Includes sawcutting, removing and disposing of existing curb, asphalt and any debris necessary to place new concrete curb. Match configuration of existing curb. See Concrete Pipe Inlet detail.			

12	02772000*	Pothole Patching	Square Feet
A. Include the cost associated with the excavation or rotomilling of 4" of asphalt, saw cutting, cleaning pothole area, tack coat, and 1/2" HMA paving. B. Replace removed asphalt with 1/2" HMA Mix until asphalt ditch profile is restored to match existing asphalt ditch surface. Includes filling holes and patching at locations where guardrail posts have been removed, and around new guardrail posts placed. C. Item includes construction of asphalt berm at concrete pipe inlet sections. See Concrete Pipe Inlet detail drawing. D. Estimated plan quantities are based on preliminary field review for bidding purposes only. Repair the actual quantities determined by the Engineer. Pothole patching may be reduced, deleted, or increased over the bid quantities from the contract. If any of these situations occur, the price of the actual quantity will be paid for at the contract unit price. Department will not allow additional compensation for repairing blow throughs, or for removing and repairing failed patches.			

13	02787000*	Asphalt Slurry Seal Coat	Square Yard
In Place. Measured along the flowline of ditch. Includes all labor, equipment and handwork necessary to place asphalt slurry seal coat. Includes cleaning and scraping existing ditch and removal of debris. Includes placing slurry seal around new posts, and on new asphalt berms constructed at concrete pipe inlets.			

14	02841001P	W-Beam Guardrail	Feet
In place, includes standard W-beam guardrail. Posts to match type placed in previous recent guardrail project within project limits.			

15	02841002P	W-Beam Guardrail with Redwood Plank	Feet
In place, includes standard W-beam guardrail, 2 Inch x 6 Inch Redwood Plank, and 60 D galvanized nails. Contractor to mark post locations prior to placement to allow openings for drainage. Redwood Plank is not to be placed at location of inlets, catch basins or asphalt ditches. Openings to be 12' – 6'' wide or two guardrail sections. Posts to match type placed in previous recent guardrail project within project limits. See Concrete Curb Inlet detail drawing and standard drawing BA 4E.			

16	028410030	W-Beam Guardrail Transition Element	Each
In place, includes guardrail with posts, blocks, hardware, curb section, and barrier reflectors. Use same post type as designated in project typical installation.			

17	028410090	W-Beam Guardrail Anchor Type 1	Each
In place. Includes 12½ ft rail element, end section, one standard wood post, one shortened wood post with foundation tube, and hardware.			

18	02373001P	Loose Riprap	Cubic yard
In place, computed using the in-place surface area and specified thickness. See Riprap Detail drawing.			

19	**023760010**	**Erosion Control Blanket**	**Square yard**
In place, do not measure overlaps			

20	**02911001P**	**Wood Fiber Mulch**	**1000 Square Feet**
In place			

21	**029120010**	**Contractor Furnished Topsoil**	**Square Yard**
In place			

22	**029220040**	**Broadcast Seed**	**1000 Square Feet**
In place			

Summary Report

Project: STP-0091(25)0 **Version: 1**

SR-91; M.P. 0.3 to M.P. 3.5

Detail	Alt Group	Alt #	Description
10 - ROADWAY	0	0	

Item Number	Description	Qty	Unit
012850010	Mobilization	1	Lump
01315001*	Public Information Services	1	Lump
01554000P	Traffic Control	1	Lump
02221007P	Remove Guardrail	6,870	ft
02610007*	12 inch Corrugated Steel Pipe Culvert, Class C	40	ft
02612000*	Concrete Pipe Inlet	4	Each
02612002*	Clean Catch Basins	2	Each
02612003*	Culvert End Sections 12 Inch	2	Each
02612004*	Catch Basin - Contingency Item	2	Each
02721007*	Untreated Base Course (shoulder dressing) 3/4 inch or 1 inch Max	600	Ton
02771003P	Concrete Curb	445	ft
02772000*	Pothole Patching	600	sq ft
02787000*	Asphalt Slurry Seal Coat	2,550	sq yd
02841001P	W-Beam Guardrail	2,800	ft
02841002P	W-Beam Guardrail with Redwood Plank	4,075	ft
028410030	W-Beam Guardrail Transition Element	2	Each
028410090	W-Beam Guardrail Anchor Type 1	2	Each

Detail	Alt Group	Alt #	Description
30 - LANDSCAPING	0	0	

Item Number	Description	Qty	Unit
02373001P	Loose Riprap	12	cu yd
023760010	Erosion Control Blanket	300	sq yd
02911001P	Wood Fiber Mulch	5	1000sqft
029120010	Contractor Furnished Topsoil	560	sq yd
029220040	Broadcast Seed	5	1000sqft

Detailed Report

STP-0091(25)0 **Version: 1**

SR-91; M.P. 0.3 to M.P. 3.5

10 - ROADWAY **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
02221007P	**Remove Guardrail**	6,870	ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 0.25		M.P. 0.56		1,650.0	SW side of structure #C-451 over Railroad
B						(Do not remove new guardrail or crash cushions)
C	M.P. 0.59		M.P. 0.77		950.4	SE side of structure #C-451 over Railroad
D	M.P. 2.28		M.P. 2.71		2,270.0	SR-91 - LT (Do not remove new crash cushion section)
E	M.P. 2.85		M.P. 3.20		2,000.0	SR-91 - LT
					6,870.4	

Note #	Note
1	Do not remove guardrail sections or crash cushions placed with previous project.
2	Limits of removal to be verified with Engineer.

Item Number	Description	Use Qty	Unit
02610007*	**12 inch Corrugated Steel Pipe Culvert, Class C**	40	ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.89				40.0	SR-91 LT
					40.0	

Item Number	Description	Use Qty	Unit
02612000*	**Concrete Pipe Inlet**	4	Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.89				1.0	SR-91 LT
B	M.P. 2.96				1.0	SR-91 LT
C	M.P. 3.07				1.0	SR-91 LT
D	M.P. 3.11				1.0	SR-91 LT
					4.0	

Note #	Note
1	Concrete Pipe inlets at M.P. 2.38, M.P. 2.5 and M.P. 3.03 to be abandoned.
2	See detail drawing "Concrete PIpe Inlets".
3	Includes clearing debris from outlet structure.

10 - ROADWAY **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
02612002*	**Clean Catch Basins**	2	Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.37				1.0	Catch Basin
B	M.P. 2.56				1.0	Catch Basin
					2.0	

Note #	Note
1	Includes clearing debris from inlet/outlet pipes at each location to allow positive drainage.

02612003*	**Culvert End Sections 12 Inch**	2	Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
B	M.P. 2.89				2.0	SR-91 LT Inlet and Outlet
					2.0	

02612004*	**Catch Basin - Contingency Item**	2	Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.37				1.0	
B	M.P. 2.56				1.0	
					2.0	

Note #	Note
1	Contingent item, boxes to be cleaned first. Must be approved by the engineer.
2	Match existing elevations.

10 - ROADWAY **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
02721007*	**Untreated Base Course (shoulder dressing) 3/4 inch or 1 inch Max**	600	Ton

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27				100.0	Grading around asphalt ditch.
B	M.P. 2.89				150.0	Concrete Pipe Inlet and Pipe.
C	M.P. 2.96				50.0	Concrete Pipe Inlet, cover existing pipe.
D	M.P. 3.07				50.0	Concrete Pipe Inlet.
E	M.P. 3.11				50.0	Concrete Pipe Inlet.
F	M.P. 3.14				50.0	Grading around asphalt ditch.
G					150.0	Misc. for areas with erosion and behind curb.
					600.0	

Note #	Note
1	Assume a unit weight of 140 pounds per cubic foot.
2	Material to be placed in layers. Use moisture between layers to allow layers to consolidate. Mechanical and hand methods may be required to compact. Engineer to approve compaction.
3	Quantities estimated for bidding purposes.

02771003P	**Concrete Curb**	445	ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.38				50.0	Place curb across abandoned pipe section.
B	M.P. 2.42				85.0	Replace section with holes in flowline.
C	M.P. 2.5				52.0	Place curb at abandoned pipe section.
D	M.P. 2.72				25.0	Reconstruct broken curved section to existing asphalt
E						ditch.
F	M.P. 2.89				40.0	At concrete pipe inlet structure with new pipe.
G	M.P. 2.96				30.0	At concrete pipe inlet structure.
H	M.P. 3.03				55.0	Place curb at abandoned pipe.
I	M.P. 3.07				50.0	At concrete pipe inlet structure.
I	M.P. 3.11				15.0	At concrete pipe inlet structure.
J	M.P. 3.17				40.0	Place curb at missing section.
					442.0	

Note #	Note
1	Match existing configuration and grade.
2	See detail drawing "Concrete Pipe Inlets" for curb placement at concrete pipe inlets.

10 - ROADWAY **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
02772000*	**Pothole Patching**	600	sq ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27		SR-91 LT		50.0	Existing Asphalt Ditch at beginning of guardrail.
B	M.P. 2.27	M.P. 3.14	SR-91 LT		500.0	Misc. locations in asphalt ditch, around posts and at
C						post holes left by removed posts.
D	M.P. 3.14		SR-91 LT		50.0	Existing Asphalt Ditch west of Brake Check area,
					600.0	

Note #	Note
1	See Detail Drawing "Asphalt Ditch".

Item Number	Description	Use Qty	Unit
02787000*	**Asphalt Slurry Seal Coat**	2,550	sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27		SR-91 LT		60.0	Existing Asphalt Ditch 6' Width x 90' Length.
B	M.P. 2.27	M.P. 2.71			1,008.89	Existing Asphalt Ditch 4' Width x 2270' Length
C	M.P. 2.72	M.P. 2.85	SR-91 LT		554.17	Existing Asphalt Ditch between guardrail sections,
D						7' Width x 712.5' Length.
E	M.P. 2.85	M.P. 3.14			888.89	Existing Asphalt Ditch 4' Width x 2000' Length
F	M.P. 3.14		SR-91 LT		30.0	Existing Asphalt Ditch west of Brake Check area,
G						6' Width x 45' Length.
					2,541.95	

Note #	Note
1	Milepost locations are approximate.

10 - ROADWAY **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
02841001P	**W-Beam Guardrail**	2,800	ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 0.25		M.P. 0.56		1,650.0	SW side of structure #C-451 over Railroad
B	M.P. 0.59		M.P. 0.77		950.4	SE side of structure #C-451 over Railroad
C	M.P. 3.17		M.P. 3.20		200.0	Guardrail section ends at Brake Check Area
					2,800.4	

Note #	Note
1	New guardrail section at SW location to be placed between section placed on previous project and the structure. Do not remove existing crash cushions or existing guardrail sections that have been recently placed.
2	Limits of new guardrail to be verified by the engineer.
3	Mileposts noted are approximate locations.

Item Number	Description	Use Qty	Unit
02841002P	**W-Beam Guardrail with Redwood Plank**	4,075	ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.28		M.P. 2.71		2,275.0	SR-91 - LT
B	M.P. 2.85		M.P. 3.17		1,800.0	SR-91 - LT
					4,075.0	

Note #	Note
1	Allow two guardrail section openings with no plank (one perpendicular and one to the east) at concrete pipe inlets & catch basins.
2	Contractor to mark post locations prior to placing guardrail. Do not place redwood plank or guardrail posts at locations where drainage features are located.
3	See Concrete Pipe Inlet detail drawing and standard drawing BA 4E.
4	Mileposts noted are approximate locations.

10 - ROADWAY **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
028410030	**W-Beam Guardrail Transition Element**	2	Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 0.56				1.0	At SW side of structure #C-451 over Railroad.
B	M.P. 0.59				1.0	At SE side of structure #C-451 over Railroad.
					2.0	

Note #	Note
1	See standard drawing BA 4B. Transition connection may be tapered down at structure if required. See example attachments at structure over I-15, just west of structure C-451 over Railroad.

Item Number	Description	Use Qty	Unit
028410090	**W-Beam Guardrail Anchor Type 1**	2	Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.28				1.0	
B	M.P. 2.85				1.0	
					2.0	

30 - LANDSCAPING **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
02373001P	**Loose Riprap**	12	cu yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27				2.0	Place at end of existing asphalt ditch.
B	M.P. 2.89				2.0	Place at end of new pipe.
C	M.P. 2.96				2.0	Place at end of existing pipe.
D	M.P. 3.07				2.0	Place at end of existing pipe.
E	M.P. 3.11				2.0	Place at end of existing pipe.
F	M.P. 3.14				2.0	Place at end of existing asphalt ditch.
					12.0	

Note #	Note
1	See Riprap Detail drawing.

023760010	**Erosion Control Blanket**	300	sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.89				71.1	Place at location of new pipe. 40' L x 16' W
B	M.P. 2.96				71.1	Place at location of existing pipe. 40' L x 16' W
C	M.P. 3.07				71.1	Place at location of existing pipe. 40' L x 16' W
D	M.P. 3.11				71.1	Place at location of existing pipe. 40' L x 16' W
					284.4	

02911001P	**Wood Fiber Mulch**	5	1000sqft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27				0.5	Disturbed areas at existing asphalt ditch.
B	M.P. 2.89				1.0	Areas disturbed by placing new pipe.
C	M.P. 2.96				0.5	Disturbed areas at concrete pipe inlet.
D	M.P. 3.07				0.5	Disturbed areas at concrete pipe inlet.
E	M.P. 3.11				0.5	Disturbed areas at concrete pipe inlet.
F	M.P. 3.14				0.5	Disturbed areas at existing asphalt ditch.
G					1.5	Misc. disturbed areas.
					5.0	

30 - LANDSCAPING **Alt Group: 0** **Alt #: 0**

Item Number	Description	Use Qty	Unit
029120010	**Contractor Furnished Topsoil**	560	sq yd

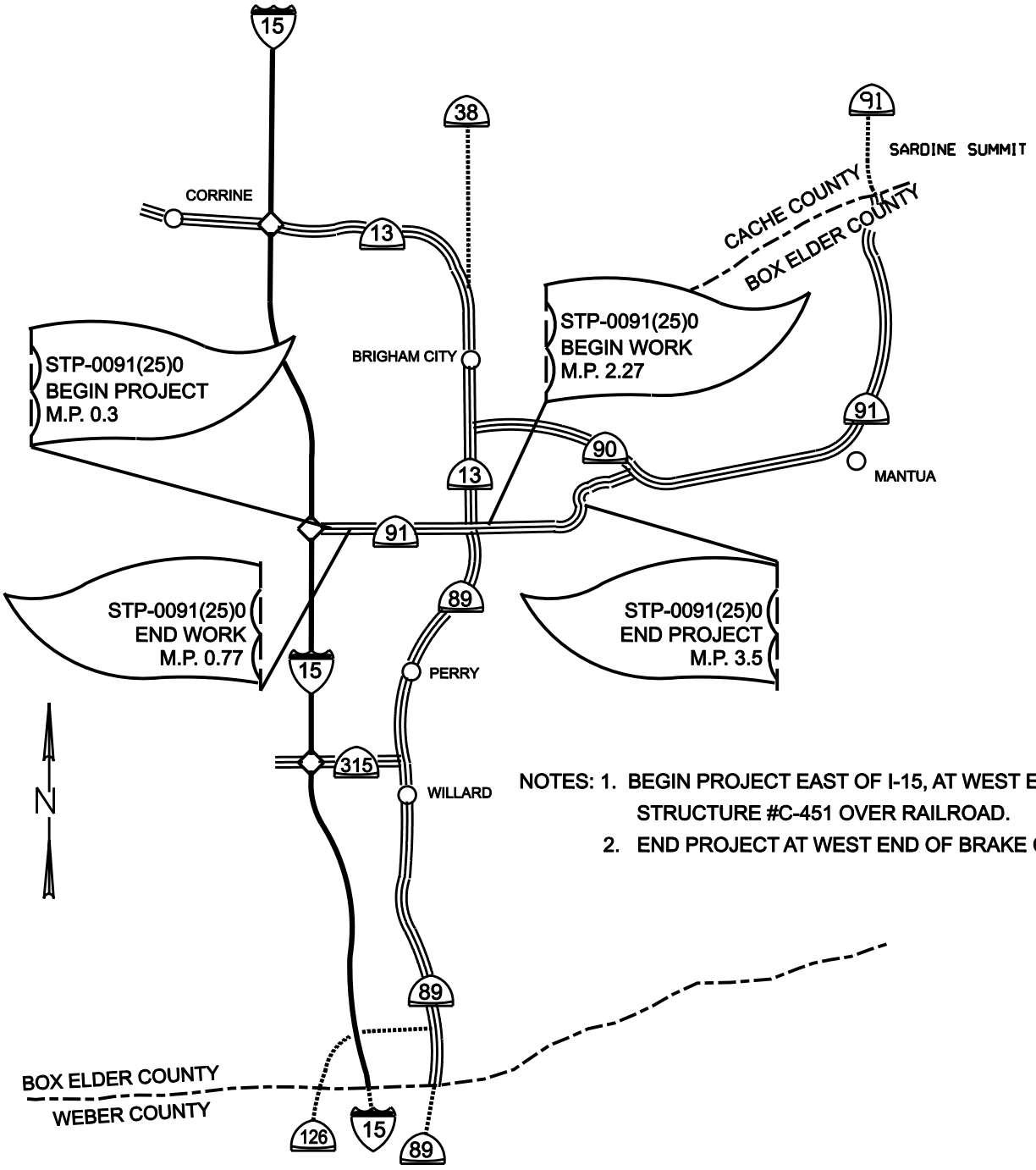
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27				55.56	Disturbed areas at existing asphalt ditch.
B	M.P. 2.89				111.11	Areas disturbed by placing new pipe.
C	M.P. 2.96				55.56	Disturbed areas at concrete pipe inlet.
D	M.P. 3.07				55.56	Disturbed areas at concrete pipe inlet.
E	M.P. 3.11				55.56	Disturbed areas at concrete pipe inlet.
F	M.P. 3.14				55.56	Disturbed areas at existing asphalt ditch.
G					166.67	Misc. disturbed areas.
					555.58	

Item Number	Description	Use Qty	Unit
029220040	**Broadcast Seed**	5	1000sqft

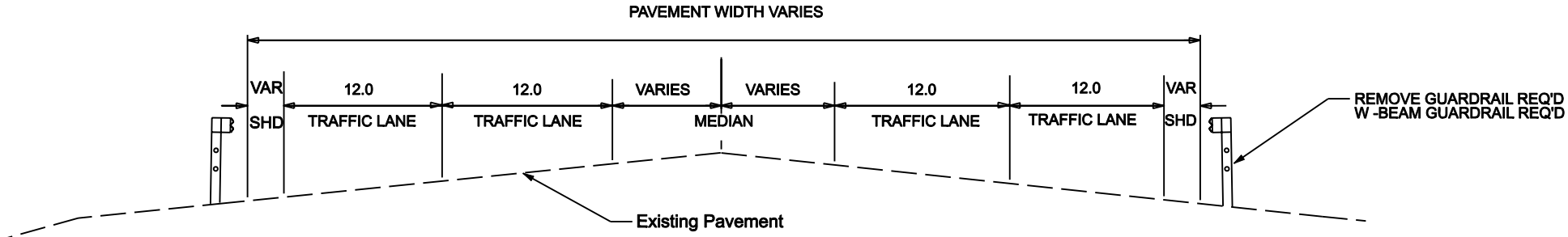
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
A	M.P. 2.27				0.5	Disturbed areas at existing asphalt ditch.
B	M.P. 2.89				1.0	Areas disturbed by placing new pipe.
C	M.P. 2.96				0.5	Disturbed areas at concrete pipe inlet.
D	M.P. 3.07				0.5	Disturbed areas at concrete pipe inlet.
E	M.P. 3.11				0.5	Disturbed areas at concrete pipe inlet.
F	M.P. 3.14				0.5	Disturbed areas at existing asphalt ditch.
G					1.5	Misc. disturbed areas.
					5.0	

Note #	Note
1	See "Seed Schedule" detail summary.

LOCATION MAP
STP-0091(25)0
REPLACE SUBSTANDARD GUARDRAIL
SR-91; M.P. 0.3 TO M.P. 3.5



NOTES: 1. BEGIN PROJECT EAST OF I-15, AT WEST END OF STRUCTURE #C-451 OVER RAILROAD.
2. END PROJECT AT WEST END OF BRAKE CHECK AREA.



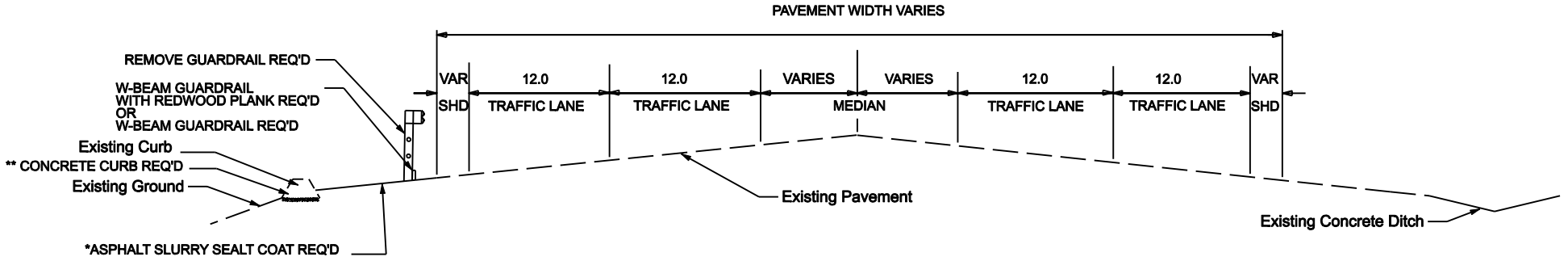
TYPICAL SECTION 1

SR-91 MAINLINE - EXISTING

DESIGN SPEED = 55 MPH

M.P. 0.25 TO M.P. 0.77

NOTE:
1. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
2. PAVEMENT SECTIONS WITH GUARDRAIL VARY.
3. LANE WIDTHS AND MILEPOSTS ARE APPROXIMATE.
4. DO NOT REMOVE CRASH CUSHIONS OR GUARDRAIL SECTIONS PLACED WITH PREVIOUS PROJECT.



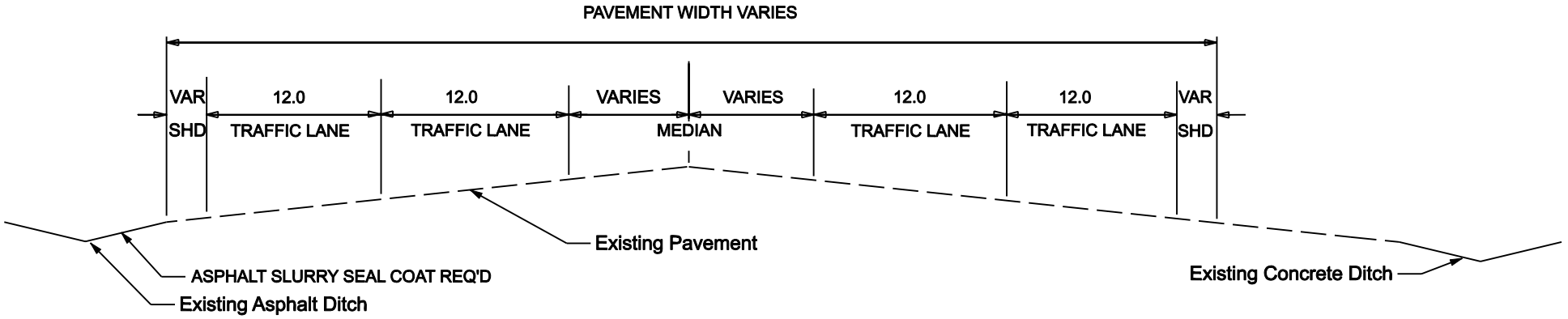
TYPICAL SECTION 2

SR-91 MAINLINE - EXISTING

DESIGN SPEED = 60 MPH

M.P. 2.28 TO M.P. 2.71 - W-BEAM GUARDRAIL WITH REDWOOD PLANK
M.P. 2.85 TO M.P. 3.17 - W-BEAM GUARDRAIL WITH REDWOOD PLANK
M.P. 3.17 TO M.P. 3.20 - W-BEAM GUARDRAIL

NOTE:
1. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
2. PAVEMENT SECTIONS WITH GUARDRAIL VARY.
3. LANE WIDTHS AND MILEPOSTS ARE APPROXIMATE.
4. *SEE "ASPHALT DITCH" DETAIL DRAWING FOR ADDITIONAL SLURRY SEAL COAT NOTES.
5. **SEE DETAILED STATIONING REPORT FOR LOCATIONS OF NEW CONCRETE CURB.



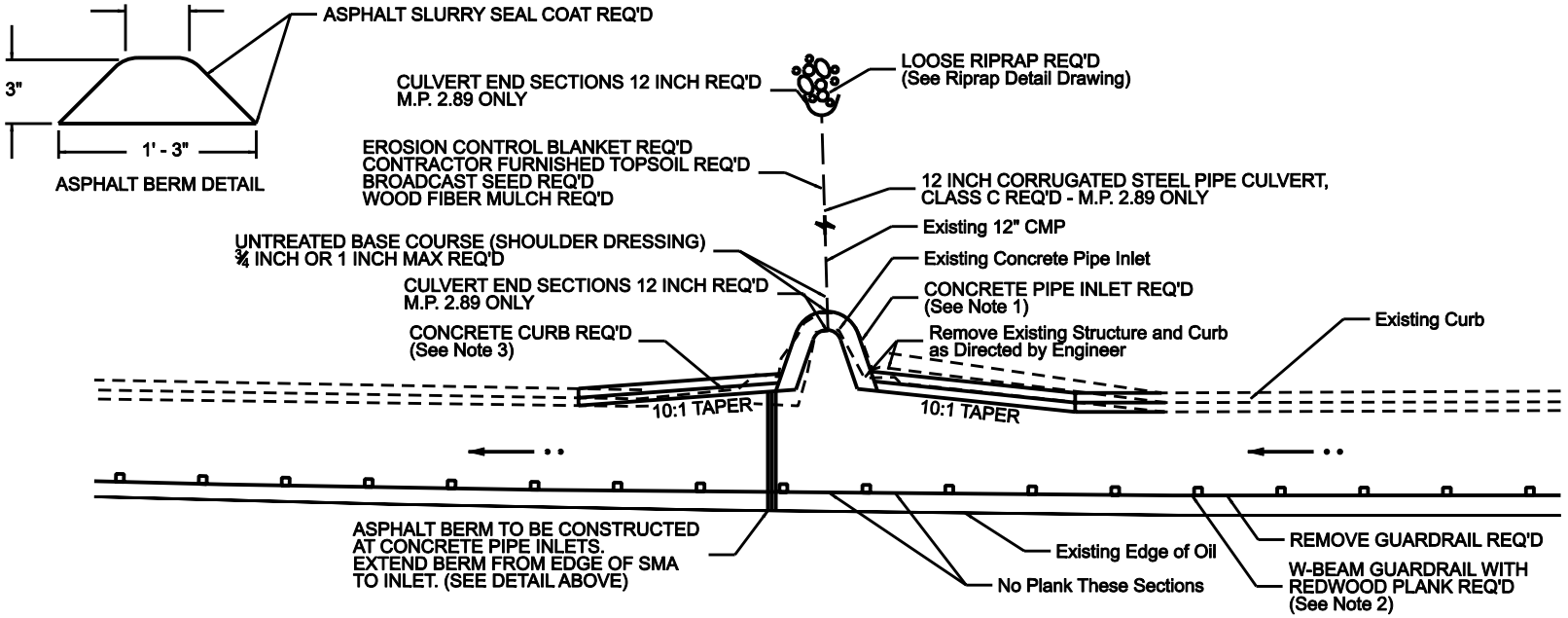
TYPICAL SECTION 3

SR-91 MAINLINE - EXISTING

DESIGN SPEED = 60 MPH
M.P. 2.71 TO M.P. 2.85

NOTE: 1. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
2. LANE WIDTHS AND MILEPOSTS ARE APPROXIMATE.

CONCRETE PIPE INLET DETAIL



NOTE 1: CONCRETE PIPE INLET

MATCH EXISTING ELEVATIONS AND CONFIGURATION.
PLACE A MINIMUM OF 3" UNTREATED BASE COURSE
UNDER NEW CONCRETE PIPE INLET.
INLETS TO BE UNIFORM WITH ROUNDED EDGES.

NOTE 2: W-BEAM GUARDRAIL WITH REDWOOD PLANK

MARK AND PLACE GUARDRAIL POSTS TO ALLOW OPENINGS AT INLETS CATCH BASINS AND EXISTING ASPHALT DITCHES. OPENINGS TO BE TWO GUARDRAIL SECTIONS (12' - 6") WIDE, ONE PERPENDICULAR AND ONE TO EAST.

NOTE 3: CONCRETE CURB

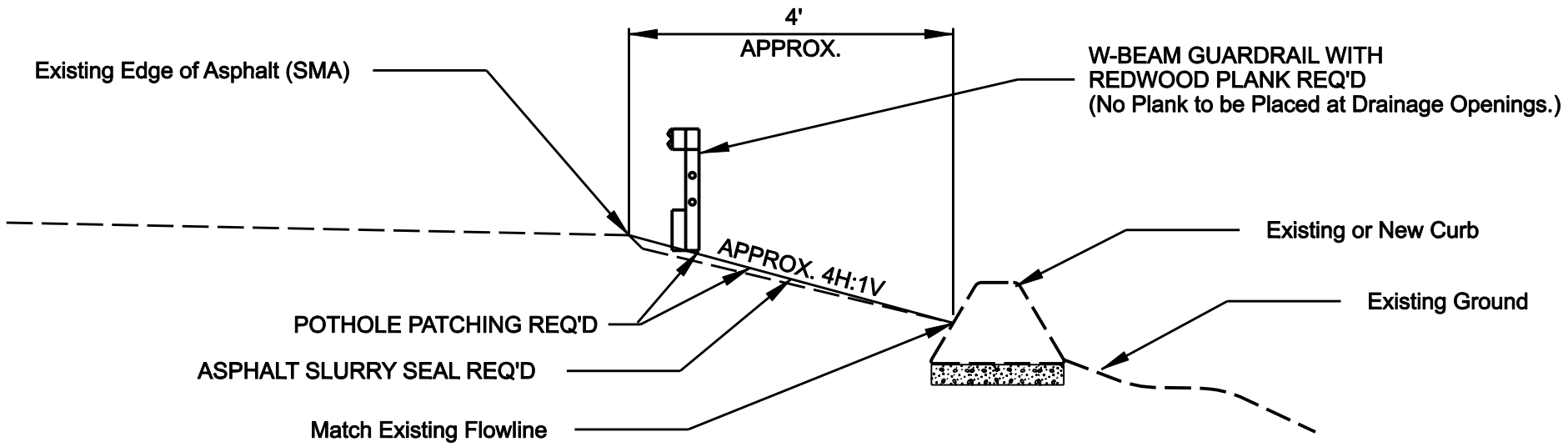
MATCH EXISTING ELEVATIONS AND CONFIGURATION.
PLACE A MINIMUM OF 3" UNTREATED BASE COURSE
UNDER NEW CONCRETE CURB.
TAPER/EXTEND CURB AWAY FROM THE ROADWAY TO
THE CONCRETE PIPE INLETS AT A 10:1 TAPER.

MISC. NOTES:

PLACE SHOULDER DRESSING, EROSION CONTROL BLANKET, TOPSOIL, BROADCAST SEED AND WOOD FIBER MULCH AT DISTURBED AREAS AND AREAS WITH EROSION AS VERIFIED BY THE ENGINEER.
PLACE LOOSE RIPRAP AT OUTLETS OF
PIPES AND EXISTING ASPHALT DITCHES.

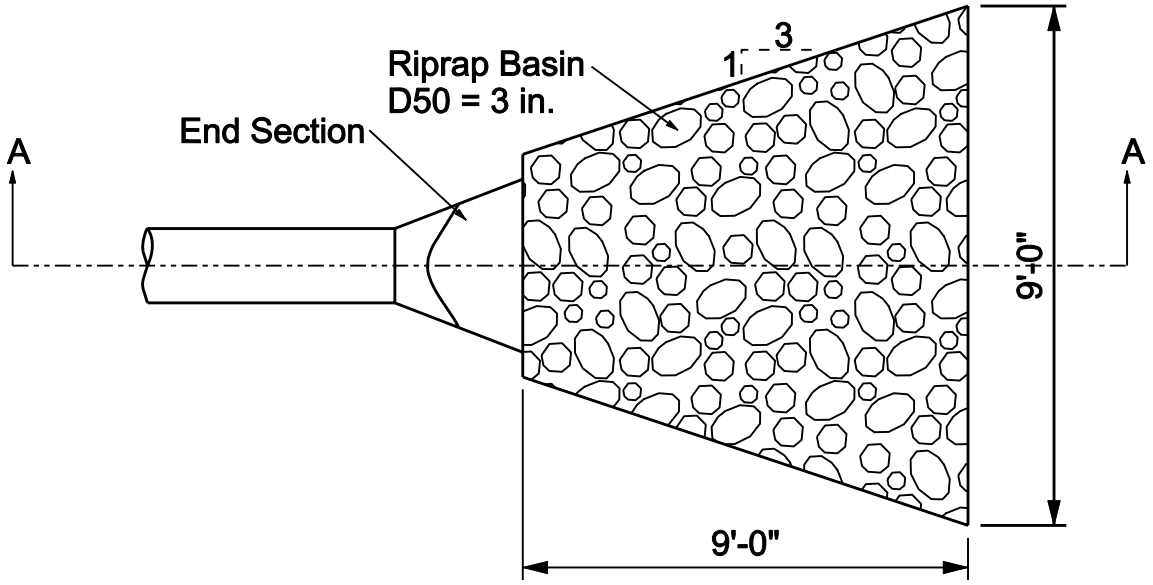
SEE DETAILED STATIONING SUMMARIES FOR LOCATIONS AND QUANTITIES

ASPHALT DITCH DETAIL

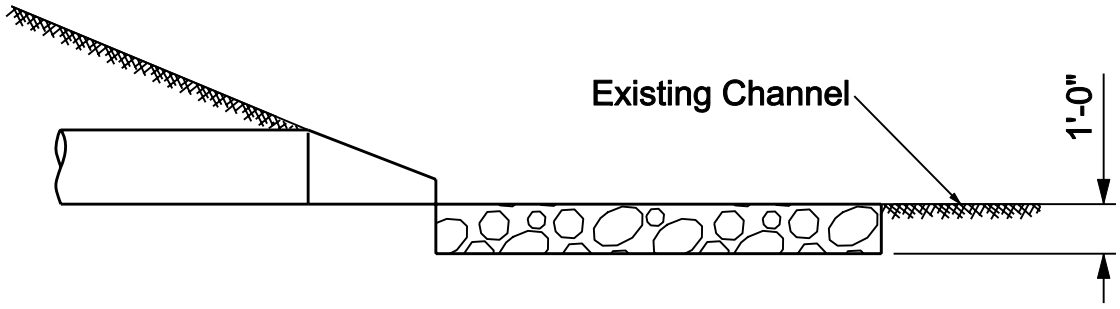


NOTES:
1. CLEAN EXISTING ASPHALT DITCH OF DEBRIS FOR A SMOOTH SURFACE AND POTHOLE PATCH ANY BROKEN AREAS, AROUND NEW POSTS, AND AT ANY HOLES LEFT FROM REMOVED POSTS BEFORE PLACING SLURRY SEAL COAT.
2. PLACE SLURRY SEAL COAT FROM EDGE OF EXISTING NEW SMA TO FLOW LINE OF CURB. MATCH EXISTING FLOWLINE ELEVATION.
3. AT SECTIONS OF ASPHALT DITCH WITHOUT CURB, PLACE SLURRY SEAL FROM EDGE OF EXISTING NEW SMA TO INSIDE EDGE OF ASPHALT DITCH. MATCH EXISTING ASPHALT DITCH CONFIGURATION.
4. SEE DETAILED STATIONING REPORT FOR LOCATIONS AND QUANTITIES.

RIPRAP DETAIL



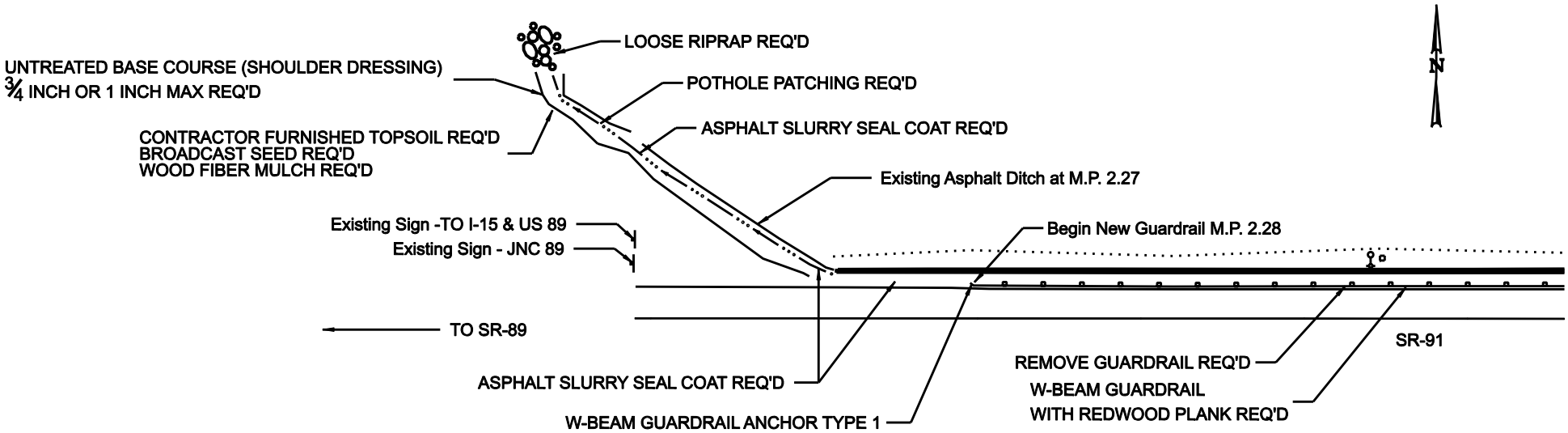
PLAN VIEW - OUTLET



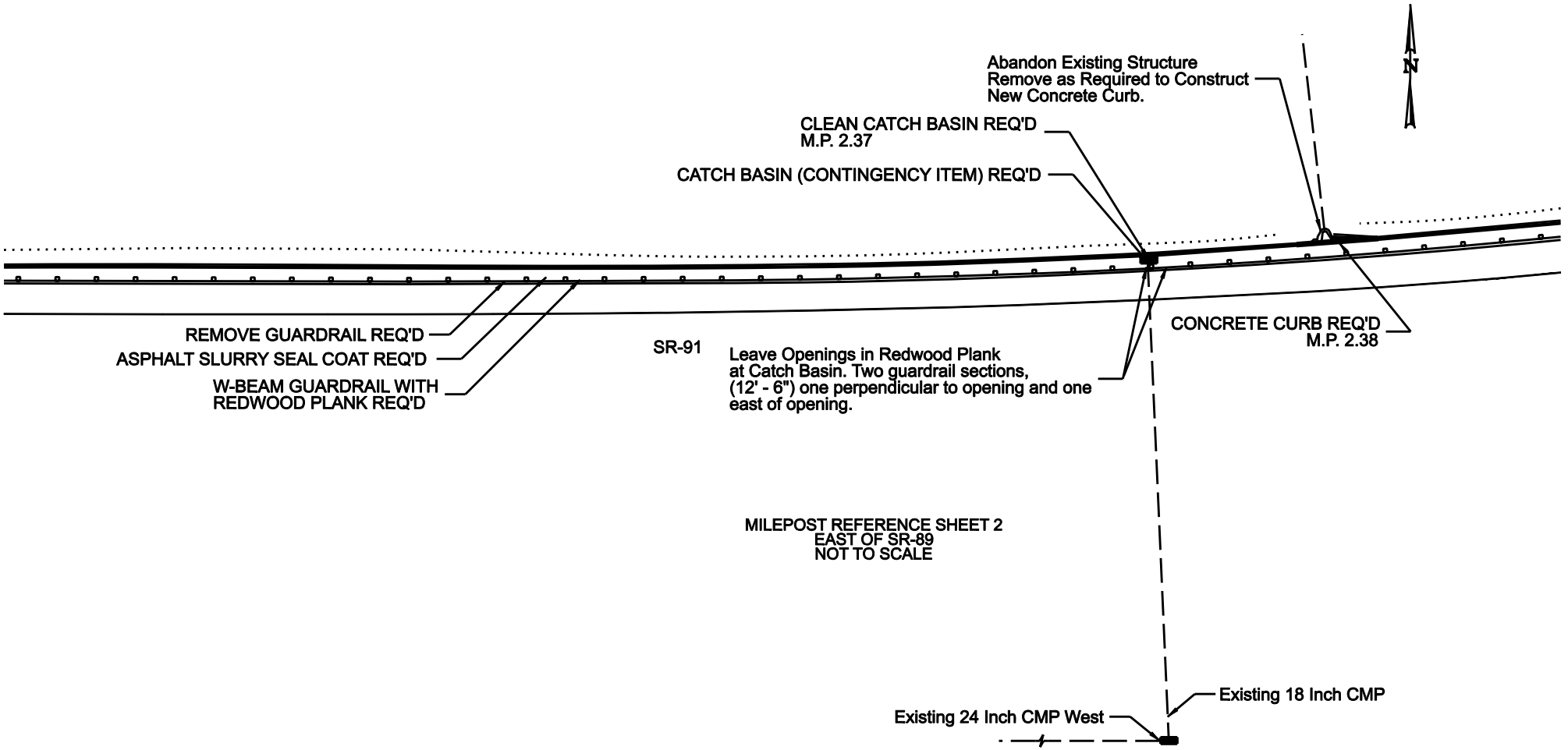
SECTION A-A

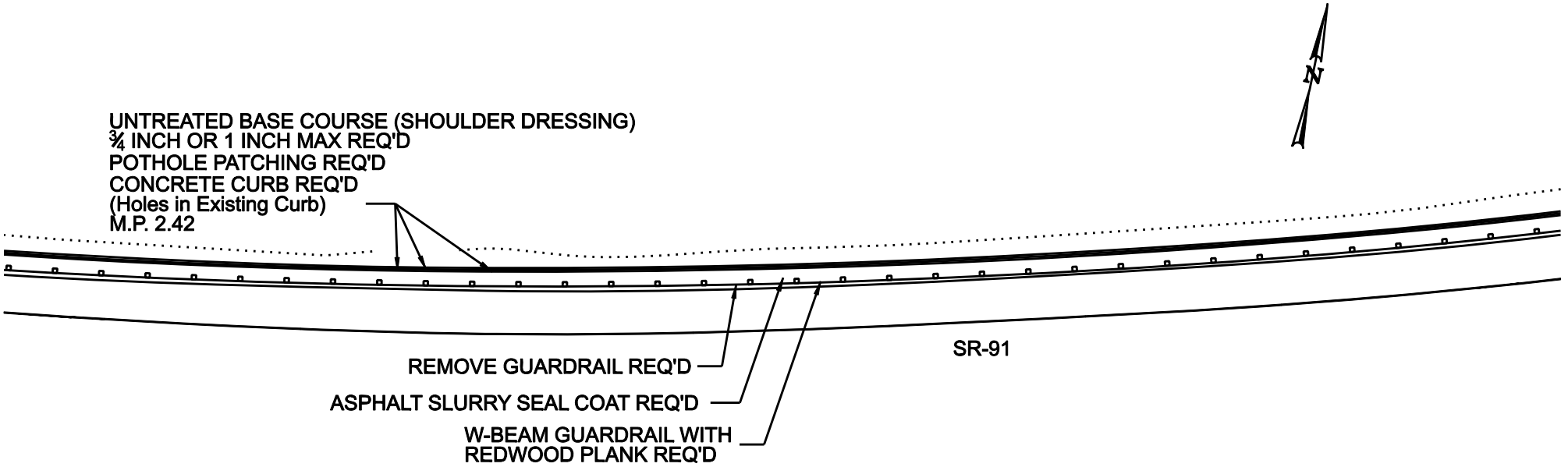
SEED SCHEDULE

SEED NO.	SPECIES NAME		Number of seeds per pound	BROADCAST SEED		
	BOTANICAL	COMMON		Pounds of pure live seed per acre	Percent of mix	Seeds per square foot
1	Agropyron cristatum 'RoadCrest'	Roadcrest Wheatgrass	200,000	4.00	19.48%	18
2	Elymus lanceolatus 'Critana'	Critana Thickspike Wheatgrass	156,000	4.00	15.19%	14
3	Elymus lanceolatus wawawai 'Secar'	Snake River Wheatgrass	140,000	5.00	17.04%	16
4	Festuca ovina 'Covar'	Covar Sheep Fescue	680,000	2.00	33.11%	31
5	Pascopyrum smithii 'Arriba'	Arriba Western Wheatgrass	110,000	3.00	8.04%	8
6	Linum lewisii 'Appar'	Appar Blue Flax	293,000	1.00	7.13%	7
	Total			**19.00**	**100.00%**	**94**

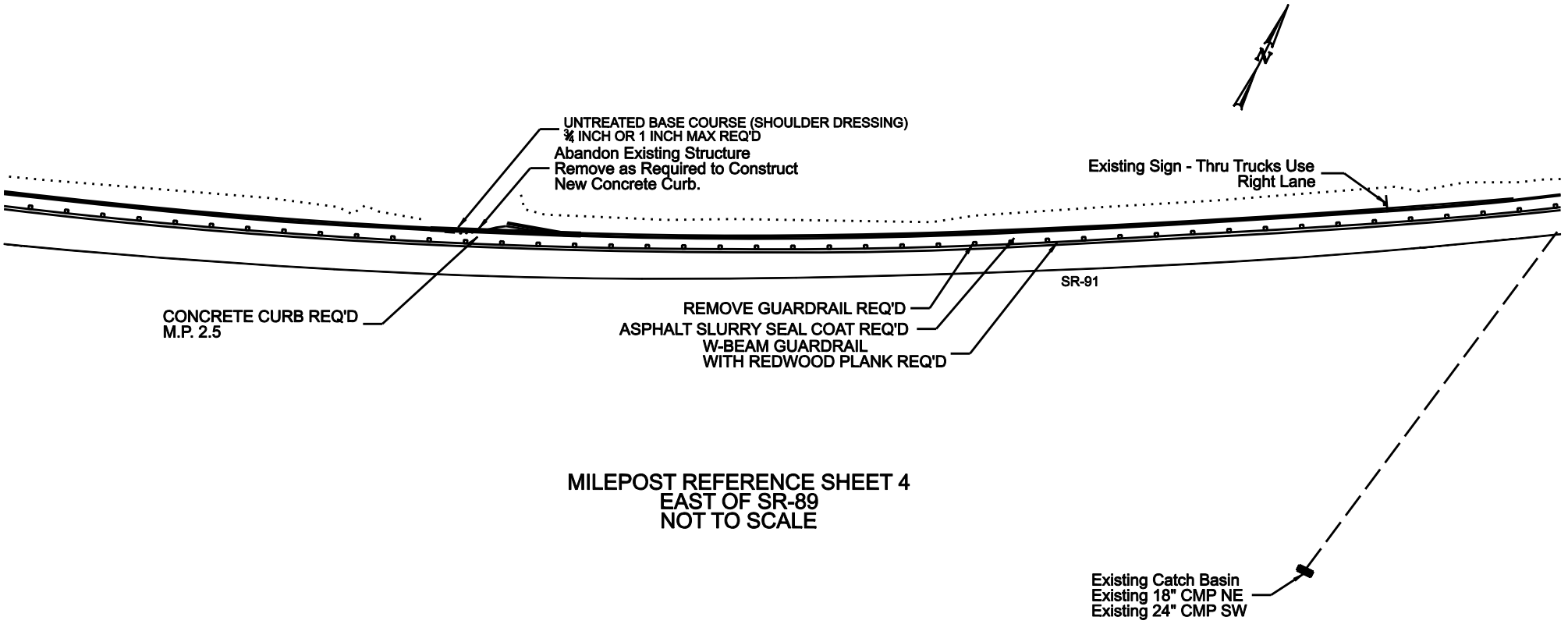


MILEPOST REFERENCE SHEET 1
EAST OF SR-89
NOT TO SCALE


Abandon Existing Structure
Remove as Required to Construct
New Concrete Curb.
N
CLEAN CATCH BASIN REQ'D
M.P. 2.37
CATCH BASIN (CONTINGENCY ITEM) REQ'D
CONCRETE CURB REQ'D
M.P. 2.38
REMOVE GUARDRAIL REQ'D
ASPHALT SLURRY SEAL COAT REQ'D
W-BEAM GUARDRAIL WITH
REDWOOD PLANK REQ'D
SR-91
Leave Openings in Redwood Plank
at Catch Basin. Two guardrail sections,
(12' - 6") one perpendicular to opening and one
east of opening.
MILEPOST REFERENCE SHEET 2
EAST OF SR-89
NOT TO SCALE
Existing 18 Inch CMP
Existing 24 Inch CMP West



MILEPOST REFERENCE SHEET 3
EAST OF SR-89
NOT TO SCALE



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EAST OF SR-89
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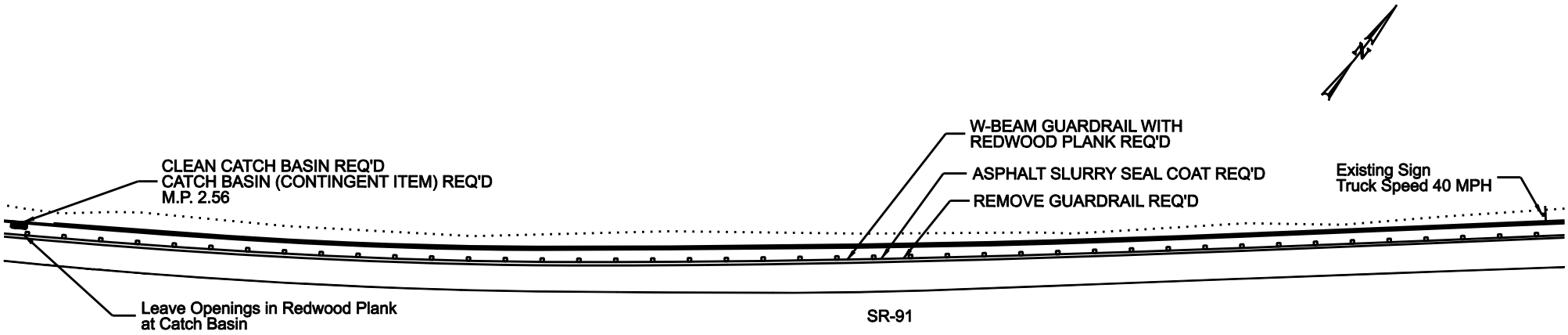

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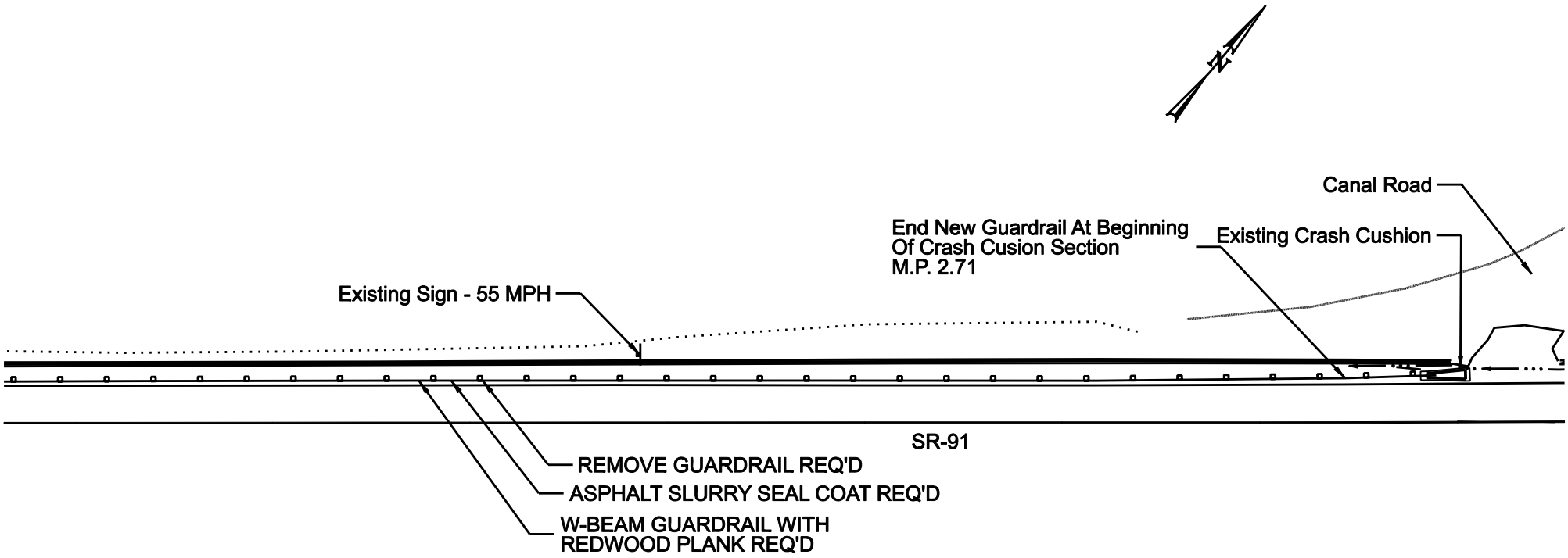

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EAST OF SR-89
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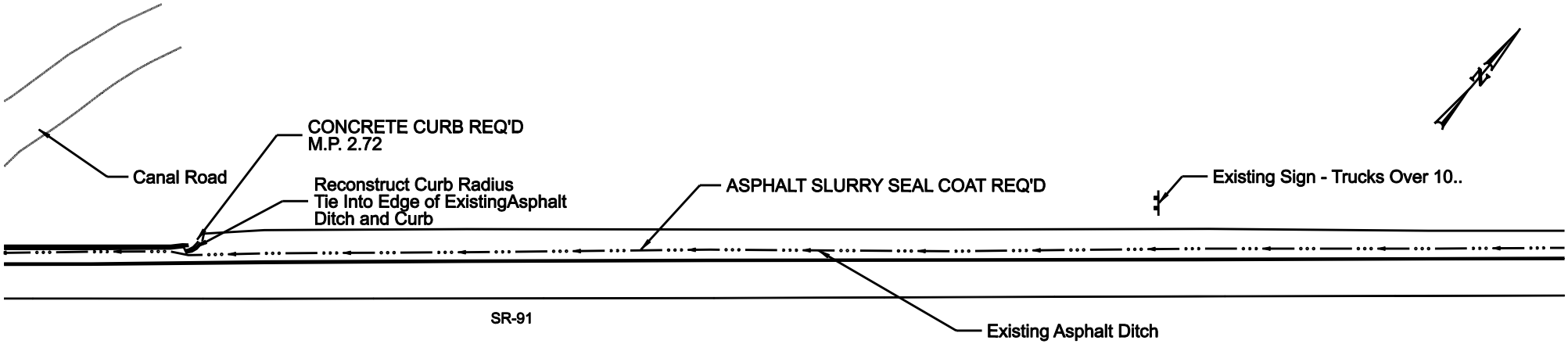

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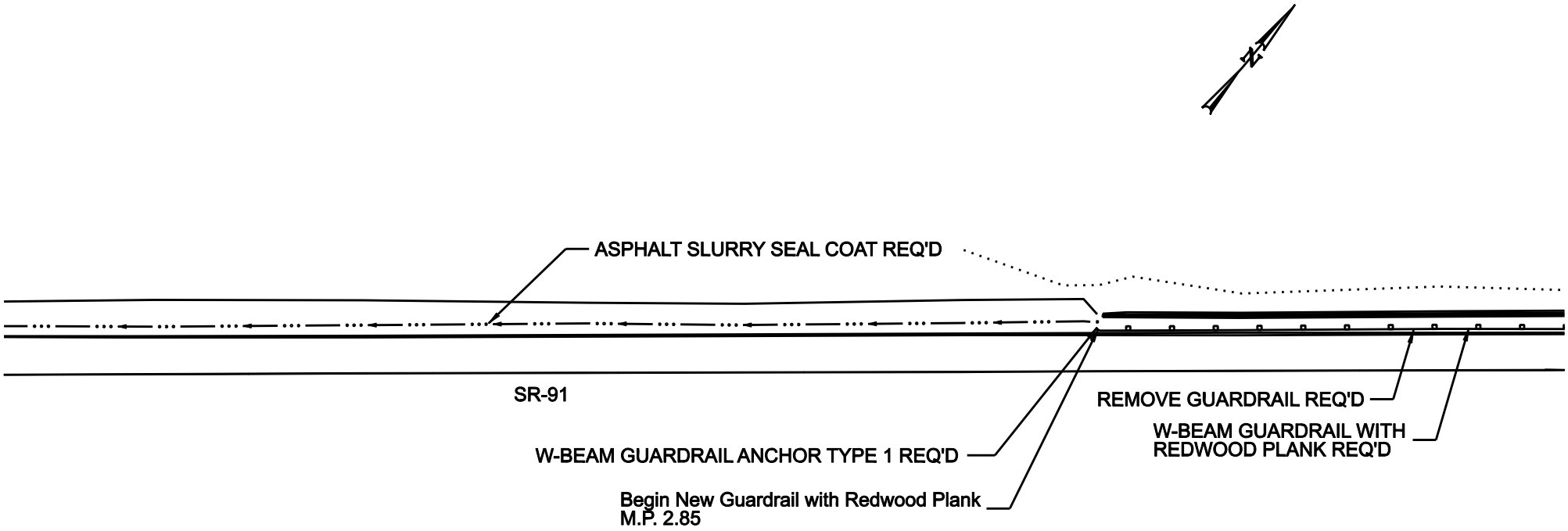
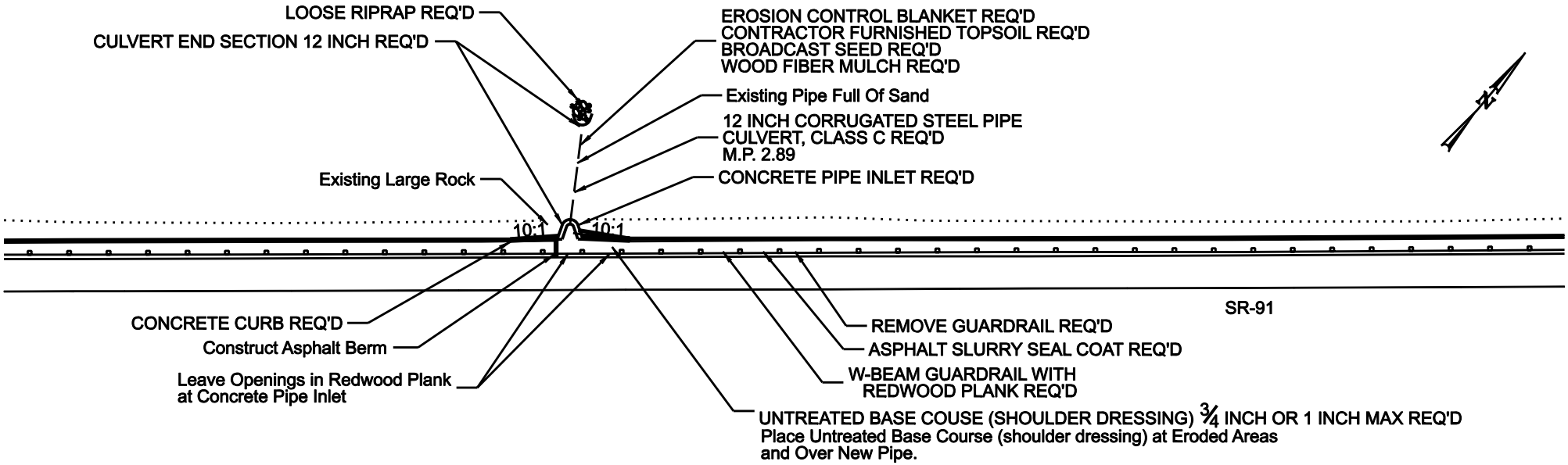
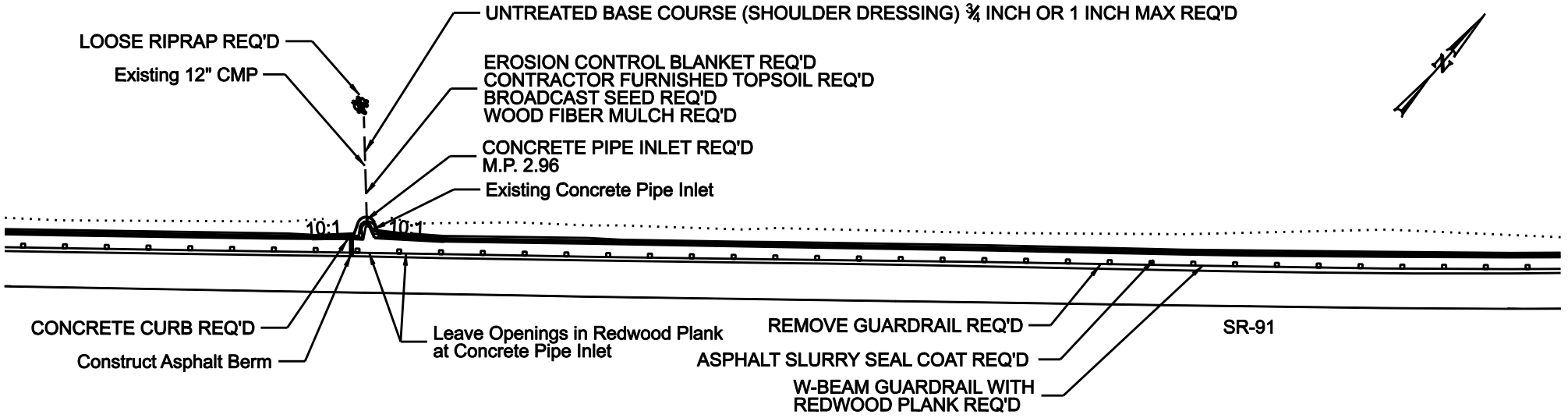
EAST OF SR-89
NOT TO SCALE



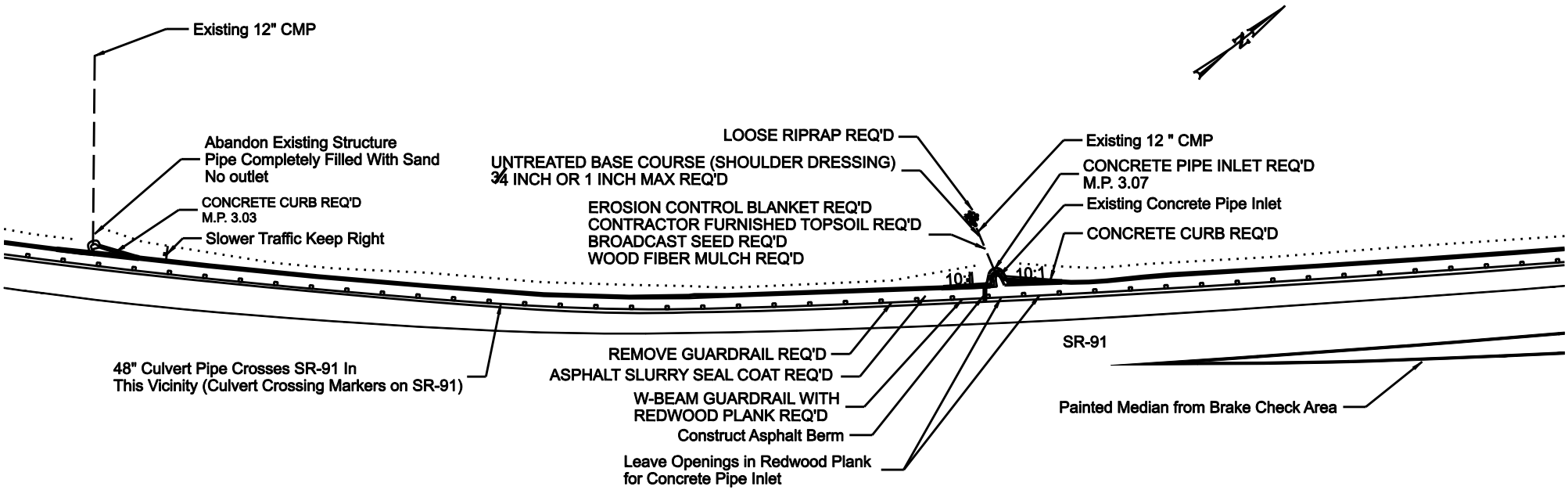
MILEPOST REFERENCE SHEET 8
EAST OF SR-89
NOT TO SCALE



MILEPOST REFERENCE SHEET 9
EAST OF SR-89
NOT TO SCALE

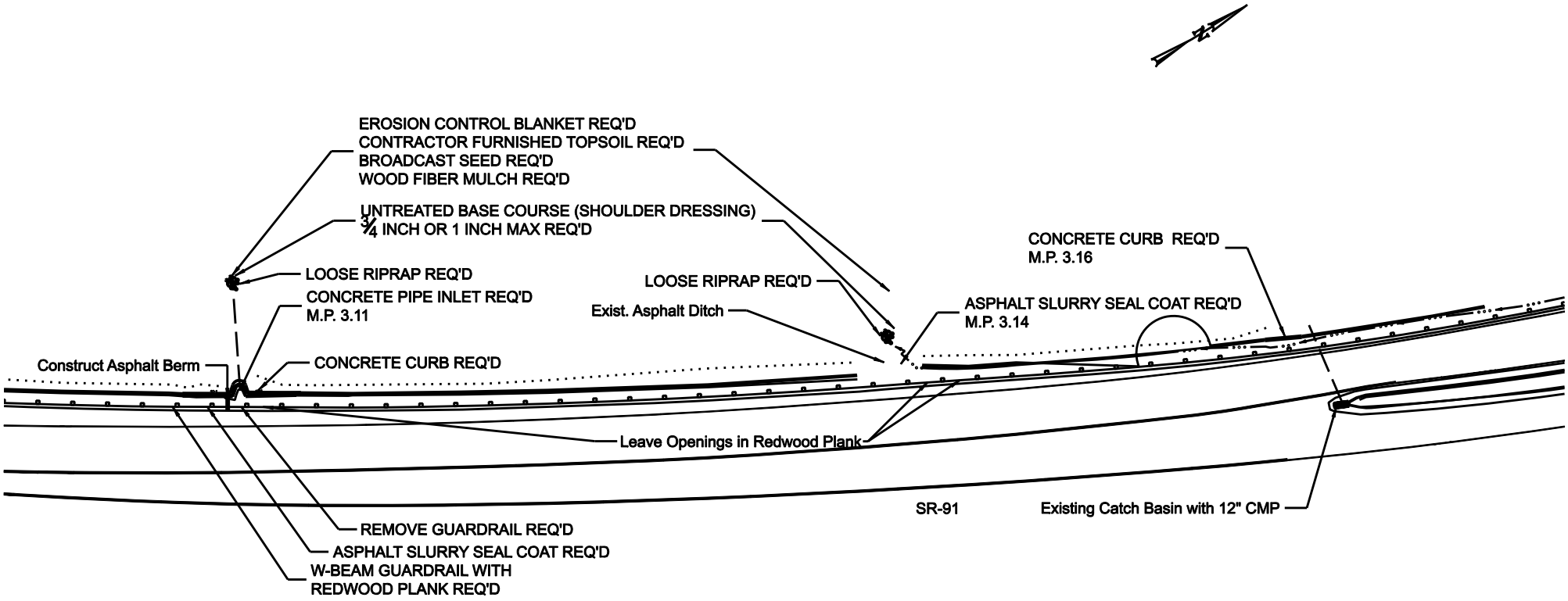


MILEPOST REFERENCE SHEET 10
EAST OF SR-89
NOT TO SCALE



MILEPOST REFERENCE SHEET 11
EAST OF SR-89
NOT TO SCALE

Existing Sign - Mile Marker 3



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EAST OF SR-89
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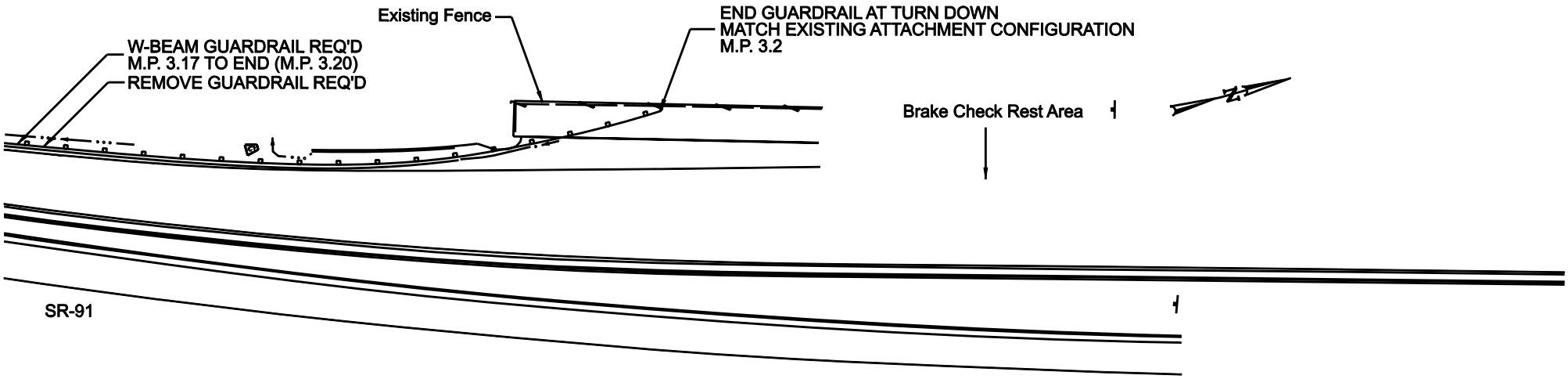

MILEPOST REFERENCE SHEET 13
EAST OF SR-89
NOT TO SCALE

X. Standard Drawings Index

STANDARD DRAWINGS INDEX (Change 4, Dated 09/12/05)
UTAH DEPARTMENT OF TRANSPORTATION

X	NUMBER	TITLE	CURRENT DATE
		Advanced Traffic Management System (AT)	
___	AT 1	Legend Sheet	02/24/05
___	AT 2	Ramp Meter Details	02/24/05
___	AT 3	Ramp Meter Sign Panel	02/24/05
___	AT 4	Typical Ramp Meter Signal Head Mounting	04/28/05
___	AT 5	Ramp Meter Loop Installation	02/24/05
___	AT 6	Conduit Details	02/24/05
___	AT 7	Polymer-Concrete Junction Box Details	02/24/05
___	AT 8	ATMS Cabinet	02/24/05
___	AT 9	ATMS Cabinet Disconnect And Transformer Frame	02/24/05
___	AT 10	CCTV Mounting Details	02/24/05
___	AT 11	CCTV Pole Details	02/24/05
___	AT 12	CCTV Pole Foundation For Dedicated CCTV Pole	02/24/05
___	AT 13	Not Used	
___	AT 14	Weigh In Motion Piezo Details	02/24/05
___	AT 15	RWIS Site And Foundation Details	02/24/05
___	AT 16	RWIS Tower Base And Service Pad Layout	02/24/05
___	AT 17	Ground Rod Installation And Tower Grounding	02/24/05
___	AT 18	TMS Detection Zone Layout	02/24/05
		Barriers (BA)	
___	BA 1A	Precast Concrete Full Barrier Standard Section	01/01/05
___	BA 1B	Precast Concrete Full Barrier Standard Section	**08/25/05**
___	BA 1C	Precast Concrete Barrier Terminal For Speed ≤ 40 MPH	01/01/05
___	BA 1D	Precast Concrete Full Section Median Installation	01/01/05
___	BA 1E	Precast Concrete Full Section Shoulder Applications	01/01/05
___	BA 2	Precast Concrete Half Barrier Standard Section	01/01/05
___	BA 3A	Cast In Place Constant Slope Barrier	02/24/05
___	BA 3B	Precast Concrete Constant Slope Transition Section For Crash Cushion And W-Beam Guardrail	**08/25/05**
X	BA 4A	W-Beam Guardrail Hardware	01/01/05
X	BA 4B	W-Beam Guardrail Transition	**08/25/05**
___	BA 4C	W-Beam Guardrail Transition Curb Section	02/24/05
X	BA 4D	W-Beam Guardrail Anchor Type I	01/01/05
X	BA 4E	W-Beam Guardrail Installations	01/01/05
___	BA 4F	W-Beam Guardrail Typicals Divided Roadways	01/01/05
X	BA 4G	W-Beam Guardrail Typical Multilane Arterial	01/01/05
___	BA 4H	W-Beam Guardrail Typical 2 Lane 2 Way	01/01/05

___	BA 4I	W-Beam Guardrail Buried In Backslope Terminal	01/01/05
___	BA 4J	W-Beam Guardrail Buried In Backslope Terminal With Rub Rail	01/01/05
___	BA 4K	W-Beam Guardrail Buried In Backslope Terminal Anchor	01/01/05
___	BA 4L	W-Beam Guardrail Curve Details	01/01/05
___	BA 4M	W-Beam Guardrail Nested Guardrail 12’ 6” Span	01/01/05
___	BA 4N	W-Beam Guardrail Nested Guardrail 18’ 9” Span	01/01/05
___	BA 4O	W-Beam Guardrail Nested Guardrail 25’ Span	01/01/05
___	BA 4P	W-Beam Guardrail With Precast Barrier For Span > 25’	01/01/05
		Catch Basins And Cleanouts (CB)	
X	CB 1	Curb and Gutter Inlet	04/28/05
___	CB 2	Open Curb Inlet	04/28/05
___	CB 3	Shallow Catch Basin	04/28/05
___	CB 4	Open Curb Shallow Catch Basin	01/01/05
X	CB 5A	Standard Catch Basin and Cleanout Box	06/30/05
X	CB 5B	Standard Catch Basin and Cleanout Box Section	01/01/05
___	CB 6A	Drop Inlet Type “A”	01/01/05
___	CB 6B	Berm Apron With Drop Inlet Type “A”	01/01/05
___	CB 7A	Drop Inlet Type “B”	01/01/05
___	CB 7B	Normal Apron With Drop Inlet Type “B”	01/01/05
___	CB 8A	Double Catch Basin	01/01/05
___	CB 8B	Double Catch Basin	01/01/05
X	CB 9A	Standard Catch Basin And Cleanout Box Situation And Layout	01/01/05
X	CB 9B	Standard Catch Basin And Cleanout Box Section Details	01/01/05
X	CB 9C	Standard Catch Basin And Cleanout Box Schedule Of Installation 18” to 42” RCP 12” to 48” CMP	01/01/05
___	CB 9D	Standard Catch Basin And Cleanout Box Schedule Of Installation 48” to 66” RCP 60” to 78” CMP	01/01/05
___	CB 10A	Standard Catch Basin And Cleanout Box Situation And Layout	01/01/05
___	CB 10B	Standard Catch Basin And Cleanout Box Section Details	01/01/05
___	CB 10C	Standard Catch Basin And Cleanout Box Schedule Of Installation 42” to 60” RCP 48” to 72” CMP	01/01/05
___	CB 11	Standard Manhole	01/01/05
		Crash Cushions (CC)	
___	CC 1	Crash Cushion Markings	01/01/05
___	CC 2	Crash Cushion Drainage Details Guideline A	01/01/05
___	CC 3	Crash Cushion Drainage Details Guideline B	01/01/05
___	CC 4	Details For Placement Crash Cushions Type A, B, And D	01/01/05
___	CC 5	Grading And Placement Details Crash Cushion Type C	01/01/05
___	CC 6	Crash Cushion Type E Sand Barrel Details	01/01/05
___	CC 7A	Grading And Installation Details Crash Cushion Type F Quad Trend 350	02/24/05
___	CC 7B	Crash Cushion Type F BEAT-SSCC	**08/25/05**
___	CC 8A	Grading And Installation Details Crash Cushion Type G	04/28/05
___	CC 8B	Grading And Installation Details For “3R” Projects Crash	

		Cushion Type G	04/28/05
___	CC 9A	Grading And Installation Details Crash Cushion Type H	04/28/05
___	CC 9B	Grading And Installation Details Crash Cushion Type H (Parabolic Flare)	04/28/05

Diversion Boxes (DB)

___	DB 1A	Standard Diversion Box/Cover Plate/Grating For 18" DIA. or 24" DIA. Pipe	01/01/05
___	DB 1B	Standard Diversion Box Hinged Lid Details For 18" DIA. or 24" DIA. Pipe	01/01/05
___	DB 1C	Standard Diversion Box Bicycle - Safe Grating Details For 18" DIA. or 24" DIA. Pipe	01/01/05
___	DB 1D	Standard Diversion Box Three Gate Box Sections For 18" DIA. or 24" DIA. Pipe	01/01/05
___	DB 1E	Standard Diversion Box Three Gate Box Sections For 18" DIA. or 24" DIA. Pipe	01/01/05
___	DB 1F	Standard Diversion Box Three Gate Box Sections For 18" DIA. or 24" DIA. Pipe	01/01/05
___	DB 2A	Standard Diversion Box w/Interchangeable Walls, Bottom Slab, Walls And Apron Details	01/01/05
___	DB 2B	Standard Diversion Box w/Interchangeable Walls, Quantities Schedule	01/01/05
___	DB 2C	Standard Diversion Box w/Interchangeable Walls, Hand Slide Gate Details	01/01/05
___	DB 2D	Standard Diversion Box Type "G" Hand Slide Gate Details	01/01/05
___	DB 2E	Standard Diversion Box Hinged Lid (Solid Cover Plate) Type "A" Details Type I Plan	01/01/05
___	DB 2F	Standard Diversion Box Hinged Lid (Solid Cover Plate) Type "A" Details Type II Plan	01/01/05
___	DB 2G	Standard Diversion Box Hinged Lid Solid Cover Type "B" Details	01/01/05
___	DB 2H	Standard Diversion Box Hinged Lid Solid Cover Type "B" And "C" Details	01/01/05
___	DB 3A	Standard Diversion Box With Manhole Cover Situation And Layout	01/01/05
___	DB 3B	Standard Diversion Box With Manhole Cover Up To 42" RCP And Up To 54" CMP	01/01/05
___	DB 3C	Standard Diversion Box With Manhole Cover 48" to 72" RCP And 60" to 84" CMP	01/01/05
___	DB 4	Standard Transition Concrete Lined Ditch To Pipe Or Diversion Box	01/01/05

Design Drawings (DD)

___	DD 1	Superelevation And Widening	01/01/05
___	DD 2	Surface Ditch, Benched Slope, And Cut Ditch Details	01/01/05
___	DD 3	Climbing Lanes	01/01/05
___	DD 4	Geometric Design for Freeways (Roadway)	04/28/05

___	DD 5	Entrance And Exit Ramps At Crossroads	01/01/05
___	DD 6	Entrance And Exit Ramp Geometrics	01/01/05
___	DD 7	Freeway Crossover	01/01/05
___	DD 8	Structural Geometric Design Standards For Clearances	01/01/05
___	DD 9	Structural Geometric Design Standards	01/01/05
___	DD 10	Railroad Clearances At Highway Overpass Structures	01/01/05
___	DD 11	Rural Multi Lane Highways Other Than Freeways	01/01/05
___	DD 12	Rural Two Lane Highways	01/01/05
___	DD 13	Frontage And Access Roads (Under 50 ADT)	01/01/05
___	DD 14	Typical Rural 2 Lane Road With Median Lane And Deceleration Lane For Intersecting Crossroads	01/01/05
		Drainage (DG)	
___	DG 1	Fill Height for Metal Pipe (Steel)	**08/25/05**
___	DG 2	Fill Height for Metal Pipe (Aluminum)	01/01/05
X	DG 3	Maximum Fill Height For HDPE And PVC Pipes	01/01/05
X	DG 4	Pipe Minimum Cover	01/01/05
X	DG 5	Plastic Pipe, Metal Pipe Or Pipe Arch Culvert Bedding	01/01/05
___	DG 6	Precast Concrete Pipe Culvert	01/01/05
___	DG 7	Gasketted Joints Or Coupling Bands For CMP	01/01/05
X	DG 8	Metal Culvert End Section	01/01/05
X	DG 9	Miscellaneous Pipe Details	01/01/05
		Environmental Controls (EN)	
___	EN 1	Temporary Erosion Control (Check Dams)	**08/25/05**
___	EN 2	Temporary Erosion Control (Silt Fence)	**08/25/05**
___	EN 3	Temporary Erosion Control (Slope Drain And Temporary Berm)	**08/25/05**
___	EN 4	Temporary Erosion Control (Drop Inlet Barriers)	**08/25/05**
___	EN 5	Temporary Erosion Control (Pipe Inlet And Curb Inlet Barriers)	**08/25/05**
___	EN 6	Temporary Erosion Control (Sediment Trap and Stabilized Construction Entrance)	**08/25/05**
___	EN 7	Temporary Erosion Control (Straw Bale Barrier)	**08/25/05**
		Fence And Gates (FG)	
___	FG 1A	Right Of Way Fence And Gates (Wood Post)	01/01/05
___	FG 1B	Right Of Way Fence And Gates (Wood Post)	01/01/05
___	FG 2A	Right Of Way Fence And Gates (Metal Post)	01/01/05
___	FG 2B	Right Of Way Fence And Gates (Metal Post)	01/01/05
___	FG 3	Swing Gates Type I For Gates Less Than 17’	02/24/05
___	FG 4A	Deer Crossing Details	04/28/05
___	FG 4B	Deer Ramp Details	04/28/05
___	FG 5	Swing Gates Type II For Gates Wider Than 17’	01/01/05
___	FG 6	Chain Link Fence	01/01/05
		Grates, Frames, And Trash Racks (GF)	
___	GF 1	Manhole Frame And Grated Cover	01/01/05

___	GF 2	Manhole Frame And Solid Cover	01/01/05
X	GF 3	Rectangular Grate And Frame	01/01/05
X	GF 4	Directional Flow Grate And Frame	01/01/05
___	GF 5	Solid Cover And Frame	01/01/05
___	GF 6	Manhole Steps	01/01/05
___	GF 7	Standard Screw Gate And Frame	01/01/05
___	GF 8	2’ x 2’ Grate And Frame	01/01/05
___	GF 9	28” x 24” Directional Flow Grate And Frame	01/01/05
___	GF 10	Standard Trash Racks 90 ° X-ing Angle	01/01/05
___	GF 11	Standard Trash Racks	01/01/05
___	GF 12	Standard Trash Racks	01/01/05
___	GF 13	Open Curb Inlet Grate and Frame	01/01/05
___	GF 14	Solid Cover For Std Dwg DB 1 MS-18 Loading	01/01/05
___	GF 15	Standard Screw Gate And Frame	01/01/05

General Road Work (GW)

___	GW 1	Raised Median And Plowable End Section	01/01/05
___	GW 2	Concrete Curb And Gutter	01/01/05
X	GW 3	Concrete Curb And Gutter Details	01/01/05
___	GW 4	Concrete Driveways And Sidewalks	01/01/05
___	GW 5A	Pedestrian Access	06/30/05
___	GW 5B	Pedestrian Access	06/30/05
___	GW 5C	Pedestrian Access	06/30/05
___	GW 6	Right Of Way Marker	01/01/05
___	GW 7	Newspaper And Mailbox Stop Layout	01/01/05
___	GW 8	Newspaper And Mailbox Support Hardware	01/01/05
___	GW 9	Delineation Hardware	01/01/05
___	GW 10	Delineation Application	01/01/05
___	GW 11	Sidewalks And Shoulders On Urban Roadways	01/01/05

Paving (PV)

___	PV 1	Joints For Highways With Concrete Traffic Lanes And Shoulders	01/01/05
___	PV 2	Pavement/Approach Slab Details	01/01/05
___	PV 3	Concrete Pavement Details For Urban And Interstate	01/01/05
___	PV 4	Concrete Pavement Details For Urban And Interstate	01/01/05
___	PV 5	Urban Concrete Pavement Details	01/01/05
___	PV 6	Rumble Strips	01/01/05
___	PV 7	Rumble Strips - Typical Application	01/01/05
___	PV 8	Note Used	
___	PV 9	Dowel Bar Retrofit	01/01/05

Signals (SL)

___	SL 1A	Traffic Signal Mast Arm Pole And Luminaire Extension	01/01/05
___	SL 1B	Traffic Signal Mast Arm Pole And Luminaire Extension	01/01/05
___	SL 2	Traffic Signal Mast Arm Details 30’ Thru 75’	01/01/05
___	SL 3	Underground Service Pedestal Details	01/01/05

___	SL 4	Traffic Signal Mast Arm Pole Foundation	01/01/05
___	SL 5	Traffic Signal Pole	01/01/05
___	SL 6	Pole Mounted Power Source Details	01/01/05
___	SL 7	Span Wire Signal Pole Details	01/01/05
___	SL 8	Signal Head Details	01/01/05
___	SL 9	Pedestrian Signal Assembly	01/01/05
___	SL 10	Traffic Signal Controller Base Details	01/01/05
___	SL 11	Traffic Signal Loop Detector Details	01/01/05
___	SL 12	Traffic Counting Loop Detector Details	04/28/05
___	SL 13	Video Detection Camera Mount	04/28/05
___	SL 14	Highway Luminaire Pole Ground Mount	**08/25/05**
___	SL 15	Luminaire Slip Base Details	**08/25/05**
___	SL 16	Highway Luminaire Pole Barrier Mount	01/01/05
___	SL 17	Highway Luminaire Pole Foundation Extension	01/01/05
___	SL 18	Single Transformer Substation Details	01/01/05

Signs (SN)

___	SN 1	Bridge Load Limits Signs	01/01/05
___	SN 2	School Speed Limit Assembly	01/01/05
___	SN 3	Overhead School Speed Limit Assembly	01/01/05
___	SN 4	Flashing Stop Sign	01/01/05
___	SN 5	Typical Installation For Milepost Signs	01/01/05
___	SN 6	Speed Reduction Sign Sequence	01/01/05
___	SN 7	Placement of Ground Mounted Signs	01/01/05
___	SN 8	Ground Mounted Timber Sign Post (P1)	04/28/05
___	SN 9	Ground Mounted Tubular Steel Sign Post (P2)	01/01/05
___	SN 10	Ground Mounted Square Steel Sign Post (P3)	01/01/05
___	SN 11	Slipbase Ground Mounted Tubular Steel Sign Post (P4)	04/28/05
___	SN 12A	Ground Mounted Sign Installation Details	**08/25/05**
___	SN 12B	Ground Mounted Sign Installation Details	01/01/05
___	SN 12C	Ground Mounted Sign Installation Details	01/01/05

Striping (ST)

___	ST 1	Object Markers “T” Intersection And Pavement Transition Guidance	01/01/05
___	ST 2	Freeway Crossover Markings	01/01/05
___	ST 3	Typical Pavement Markings	01/01/05
___	ST 4	Crosswalks, Parking And Intersection Approaches	01/01/05
___	ST 5	Painted Median And Auxiliary Lane Details	02/24/05
___	ST 6	Passing/Climbing Lanes Traffic Control	01/01/05
___	ST 7	Pavement Markings And Signs At Railroad Crossing	01/01/05
___	ST 8	Plowable Pavement Markers	01/01/05
___	ST 9	School Crossing And School Message	01/01/05

Structures And Walls (SW)

___	SW 1A	Welded End Guard Unit	01/01/05

___	SW 1B	Precast Concrete Cattle Guard	01/01/05
___	SW 2	Noise Wall Placement Area	01/01/05
___	SW 3A	Precast Concrete Noise Wall 1 Of 2	01/01/05
___	SW 3B	Precast Concrete Noise Wall 2 Of 2	01/01/05
___	SW 4A	Precast Concrete Retaining/Noise Wall 1 Of 2	01/01/05
___	SW 4B	Precast Concrete Retaining/Noise Wall 2 Of 2	01/01/05

Traffic Control (TC)

X	TC 1A	Construction Zone Channelization Devices	01/01/05
X	TC 1B	Construction Zone Signing	01/01/05
X	TC 2A	Traffic Control General	01/01/05
X	TC 2B	Traffic Control General	01/01/05
X	TC 3	Traffic Control Project Limit Signing	01/01/05
___	TC 4	Traffic Control Urban Intersections With Roadways Under 50 MPH	01/01/05
___	TC 5	Traffic Control Urban Intersections With Roadways Under 50 MPH	01/01/05
___	TC 6	Traffic Control Pedestrian Routing	01/01/05
___	TC 7	Traffic Control Road Closed, Detour	01/01/05
X	TC 8	Traffic Control Lane Closure	01/01/05
___	TC 9	Traffic Control Multilane Closure	01/01/05
___	TC 10	Traffic Control Expressway And Freeway Crossover/Turn Around	01/01/05
___	TC 11	Traffic Control Exit Ramp Gore	01/01/05
X	TC 12	Traffic Control Entrance Ramp Gore	01/01/05
___	TC 13	Traffic Control Shoulder-Haul Road	01/01/05
___	TC 14	Traffic Control Flagging Operation	01/01/05
___	TC 15	Traffic Control 2 Lane/2 Way Seal Coat With Cover Material	01/01/05
___	TC 16	Traffic Control Pavement Marking	01/01/05

XI. Use of Minority or Women Owned Banks

SPECIAL PROVISION

In the spirit of Federal Department of Transportation regulations the Utah Department of Transportation encourages all contractors and suppliers to thoroughly investigate the services offered by banks controlled and/or owned by minorities or women and to utilize their services as deemed feasible.

XII. Bid Conditions
DISADVANTAGED BUSINESS ENTERPRISE (DBE)

POLICY

"Policy Statement"

It is the policy of the DEPARTMENT to take all necessary and reasonable actions to ensure that DBEs as defined herein shall have equal opportunity to participate in the performance of contracts financed in whole or in part with US Department of Transportation (DOT) funds under this agreement as modified herein.

"Objectives"

The objectives of this policy are to:

1. Ensure nondiscrimination in the award and administration of DOT assisted contracts;

2. Create a level playing field on which DBEs can compete fairly for DOT assisted contracts;

3. Ensure that the DBE program is narrowly tailored in accordance with applicable law;

4. Ensure that only firms that fully meet *49 CFR 26* eligibility standards are permitted to participate as DBEs;

5. Remove barriers to the participation of DBEs in Federal aid contracts;

6. Assist the development of firms that can compete successfully in the marketplace outside the DBE program; and

7. Provide appropriate flexibility in establishing and providing opportunities for DBEs.

"Responsibilities"

Implementation of the DBE Program is accorded the same priority as compliance with all other legal obligations incurred by the DEPARTMENT in financial assistance agreements with DOT.

1. The Civil Rights Manager shall be the DBE liaison officer, who shall have direct, independent access to the Executive Director concerning DBE program matters. The Civil Rights manager shall be responsible for implementing all aspects of the DBE program. Adequate staff will be assigned to administer the DBE program.

2. The ENGINEER is responsible for supervision of the DBE participation covered by the Contract.

DBE BID AND PERFORMANCE CONDITIONS

"Obligations"

The contractor, subcontractor, service provider, or supplier at any lower tier shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the DEPARTMENT deems appropriate.

"Assurances"

Each contract between the DEPARTMENT and the Contractor and each subcontract at any lower tier must include the following assurance:

> The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the DEPARTMENT deems appropriate.

A. CONTRACT GOAL

1. The DEPARTMENT has determined that one or more can reasonably be expected to compete for the work contained in the proposal for this project. It is, therefore, the goal of the DEPARTMENT that DBE firms shall have an affirmative action opportunity to contract for the following percentage of work under this contract:

   a. If the indicated DBE percent of the *CONTRACT DBE GOAL* is greater than 0.0 percent, complete Part A of the DBE BID ASSURANCE. Refer to Bidding Requirements, Section D, Subsection 1,a, of this Special Provision. (The commitment dollar amount up to the amount of the assigned goal is Race Conscious DBE participation. Any commitment dollar amount in excess of the assigned goal is Race Neutral Participation.)

b. If the indicated DBE percent of the *CONTRACT DBE GOAL* is 0.0 percent complete Part B of the DBE BID ASSURANCE. Refer to Bidding Requirements, Section D, Subsection 1,b, of this Special Provision. (Any commitment to a DBE is Race Neutral Participation.)

CONTRACT DBE GOAL: 0 Percent

2. GOALS

a. GOAL FOR BID EVALUATION

The above entered DBE percentage is a goal for bid evaluation to determine responsiveness of the proposal as it relates to this specification. Percentages for bidding purposes shall be calculated using dollar values and quantities as shown in proposals received for this project. Bidders shall compute the percentage of their DBE commitment by dividing the dollar amount of subcontract work that is being committed to certified DBE firms by the total dollar amount of the proposal. This will be the percentage of their DBE commitment to be used by the Electronic Bidding System (EBS) software.

b. RACE CONSCIOUS GOAL

DBE participation on projects that are assigned a Goal for Bid Evaluation that is greater than 0.0 percent is *race conscious* and the DBE commitment becomes a contract specification upon award. The Bidder must submit with its Bid Proposal a *DBE Commitment,* prepared within the EBS software, that indicates:

(1) Name of DBE firm
(2) Work items to be performed
(3) Total dollar amount of commitment

If the DBE commitment does not meet or exceed the assigned goal, the Bidder must submit with the Bid Proposal documentation of good faith efforts.

c. RACE NEUTRAL GOAL

DBE participation on projects that are assigned 0.0 percent Goal for Bid Evaluation is *race neutral* and does not become a contract specification upon award. The Bidder must take equal opportunity action to allow DBEs to compete for and perform on subcontracts. Only work classifications that the Bidder will subcontract need to be considered in evaluating equal opportunity action in the bid preparation. Contacts that have been made with DBE firms regarding potential work to be subcontracted and the results of such contacts are to be submitted with the EBS prepared Bid Proposal in *Race Neutral DBE Documentation* which contains:

(1) The work classifications that will be subcontracted.
(2) DBE firms contacted.
(3) Result of contact
(4) Name of anticipated DBE subcontractor(s)
(5) Anticipated work items to be performed by DBEs.
(6) Anticipated dollar amount of subcontract(s).

NOTE: In the EBS (Electronic Bidding System):
Use the Quote Comparison to document item (1).
Use the DBE Contact Log to document items (2) and (3).
Use the DBE Commitment to document items (4), (5), and (6).

The *Race Neutral DBE Documentation* is required to document equal opportunity action and to assist UDOT with DBE reporting and DBE goal setting. Use the EBS functions in above NOTE as the Race Neutral DBE Documentation.

d. GOAL FOR CONTRACT PERFORMANCE

The Bidder's *DBE Commitment* becomes an attachment to the Bid Proposal and is a condition of award, and thereby becomes a contract specification. Upon award, this Race Conscious DBE Commitment also becomes the minimum goal for contract performance.

Commitments to DBEs that exceed the Goal for Bid Evaluation will be considered as both race conscious and race neutral. The dollar amount of the Goal for Bid Evaluation will be considered to be race conscious participation. Any dollar amounts in excess of the Goal for Bid Evaluation will be considered as race neutral participation.

It is the intent of this Special Provision that the DBE Firm(s) listed for *race conscious* participation, as a minimum level of participation, will perform to the extent indicated in the Bidder's DBE Commitment. The minimum level of DBE participation includes:

(1) Indicated DBE firm(s),
(2) Indicated work item(s) (bid items),
(3) Indicated total dollar amounts.

Listed bid items shall be considered to be committed in their entirety unless Bidders designate otherwise in their DBE Commitment. If the DBE will perform only a part of the bid item, i.e., haul only, the Bidder must indicate what part the DBE will perform (Partial Performance). If the DBE will perform only a part of the quantity of the bid item, the Bidder must indicate the estimated quantity of the work to be performed by the DBE (Partial Quantity).

Substitutions of DBE subcontractor(s), work item(s), or decreases of total dollar amount(s) as indicated in the Bidder's DBE Commitment will not be allowed without prior submission of written justification to the ENGINEER and approval of the ENGINEER and the Civil Rights Manager.

After award of a contract, substitutions will not be allowed without prior submission of a written “hold harmless” statement from the DBE.

Any change by the Contractor in the DBE Commitment requires that the change is approved by a Change Order.

Substitution of race neutral participation in excess of the Goal for Bid Evaluation requires equal opportunity efforts to substitute with other DBE participation.

DEPARTMENT generated decreases due to quantity changes in individual bid items do not require prior approval of the Civil Rights Manager—but must be fully justified by the ENGINEER at the conclusion of the project in the Explanation of Overruns and Under-runs Statement. The ENGINEER'S justification shall show the total estimated quantity, the final pay quantity as shown on the final estimate invoice, the quantity of the under-run, and the percent of under-run of the individual item. The explanation for the under-run shall include the reasons for the under-run and shall include as much detail as possible.

e. GOAL FOR FINAL COMPLIANCE

Percentages for final compliance shall be based on actual payments to DBEs. Over-runs and under-runs in individual contact items may require adjustments in the predetermined DBE percentage for a project if those items were not related to DBE performance. "The predetermined percentage for a project" refers to the percentage of the Contractor's DBE Commitment that becomes a contract specification upon award.

B. DEFINITIONS

For the purpose of this Special Provision, the following terms are defined:

1. Contract means a legally binding relationship obligating a seller to furnish supplies or services including but not limited to, construction and professional services) and the buyer to pay for them.
2. Contractor means one who participates, through a contract or subcontract (at any tier).

3. Disadvantaged Business Enterprise or DBE means a for profit small business concern.

   a. That has been certified to DBE status by the UUCP.

   b. That is at least 51 per cent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 per cent of the stock of which is owned by one or more such individuals; and

   c. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

   d. Whose size is limited to average annual gross receipts of $17,425,000 over the previous three fiscal years. The Secretary of Transportation may adjust this amount from time to time for inflation.

OR

Whose size is limited to the current SBA Business size standard(s) found in 23 CFR part 121 appropriate to the type(s) of work the firm seeks to perform in DOT-assisted contracts.

4. DBE Goals mean:

   a. UDOT's annual overall goal on DOT-assisted projects for Federal fiscal year

   b. 2005 is 8.9 percent. 3.9 percent of the overall goal is a race neutral goal and reflects the level of DBE participation that would be expected absent the effects of discrimination. There is an implied DBE goal on projects with no goals (0.0 percent) that have subcontracting opportunities. The implied goal is the percent achievable by equal opportunity efforts.

   c. 5.0 percent of the goal is a race conscious goal and reflects the level of DBE participation that will be achieved in response to assigned DBE goals.

5. DBE Joint Venture means an association of a DBE firm and one or more other firms to carry out a single, for profit business enterprise, for which the parties combine their property, capital, efforts, skills, and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture to a degree commensurate with its ownership interest.

   The DEPARTMENT's Civil Rights Office prior to bid opening must approve a DBE joint venture in order to be utilized for the satisfaction of contract DBE goals. A DBE Joint Venture application must be submitted allowing ample lead-time for the Civil Rights Office to review, evaluate, and verify information provided for in the application. An interview of the applicant may be necessary at the discretion of the DEPARTMENT prior to approval of the application. If an interview is deemed necessary it will be scheduled at the convenience of all parties.

6. Equal Opportunity Action requires individuals to be considered on the basis of individual capacities and not on the basis of any characteristics generally attributed to the group.

   If a bidder requests or accepts bids for subcontract work, the bidder will request and accept bids from DBEs in the work classifications that potentially will be subcontracted.

7. Good Faith Efforts means efforts to achieve a DBE goal or other requirements of this part that by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirements.

8. Lack of Financial Fitness is a performance-based definition based solely on failure to pay promptly. There is no reference to financial status or financial capability.

9. Prompt Payment means payment made no later than ten (10) work days after receipt of payment by the Contractor or Subcontractor, Service Provider or Supplier at any lower tier.

10. Race Conscious measure or program is focused specifically on assisting only DBEs, including women-owned DBEs. UDOT must establish contract goals to meet any portion of its overall DBE goal that it does not project being able to meet using race neutral means. To ensure that the DBE program continues to be narrowly tailored to overcome the effects of discrimination, UDOT must adjust the use of contract goals as follows:

    a. If during the course of any year it is determined that the overall goal will be exceeded, UDOT will reduce or eliminate the use contract goals to the extent necessary to ensure that the use of contract goals does not result in exceeding the overall goal.

    b. If it is determined that UDOT will fall short of its overall goal, then appropriate modifications in the use of race neutral and/or race conscious measures will be made to allow UDOT to meet the overall goal.

11. Race Neutral measure or program is one that is, or can be, used to assist all small businesses. UDOT must meet the maximum feasible portion if its overall DBE goal by using race -neutral means of facilitating DBE participation. Race neutral DBE participation includes:

    a. Any time a DBE wins a prime contract through customary competitive procurement procedures,

    b. Is awarded a subcontract on a prime contract that does not carry a DBE goal,

    c. Is awarded a subcontract from a prime contractor that did not consider its DBE status in making the award even if there is a DBE goal.
    For the purposes of this part, race-neutral includes gender-neutrality.

12. Regular Employee is a person who:

    a. Would be working for the DBE firm on any other subcontract with any other contractor.

    b. Is a permanent employee of the DBE firm

       Or

       Has been recruited through the traditional recruitment and/or employment centers

    c. Has not recently been employed by the prime contractor on the present project, another subcontractor on the present project, or the renter-lesser of equipment being used on the present project.

    d. Is not a member of a construction crew that regularly works for a non-DBE.

    e. Is not a licensed contractor who is at the time "unemployed" or "between jobs."

13. Regular Equipment is owned or leased and operated on a long term agreement and not on an *ad hoc* or contract by contract agreement.

    a. The equipment would be used by the DBE firm on any other subcontract with any other contractor.
    b. The equipment would be owned by the DBE firm.

    Or

       The equipment would be leased/rented from traditional equipment lease/rental sources.

    c. The DBE firm would have a rental/lease agreement for any rented or leased equipment.

    d. The equipment cannot belong to:

       (1.) Prime Contractor
       (2.) Another subcontractor on the present project.
       (3.) Supplier of materials being installed by the DBE firm.

    e. The equipment cannot come from another contractor fully operated.

14. Reasonable Bid

This is a bid the DEPARTMENT would accept if it were the only bid submitted. Generally, this is a bid within 10 percent of the Engineer's Estimate.

15. Responsible Bidder

A responsible bidder has the apparent ability and capacity to perform the contract requirements.

In addition to normal prequalification, a responsible bidder is defined as one who has signed (manually or electronically) and submitted with the bid the DBE Bid Conditions Assurance of good faith effort included as Part I of this Special Provision certifying the intention to meet the DBE goal of a proposed contract or to continue good faith effort to do so. These goals may be met by subcontracting or leasing contracts with a DBE or purchasing material from a DBE insofar as the work or material becomes a part of a proposed contract.

16 Responsive Bidder

a. A responsive bidder is a bidder who unequivocally offers to provide services or supplies in conformity with the material terms of the solicitation. In addition to normal prequalification and other bidding requirements, a responsive bidder in relationship to this Special Provision is defined as one who submits evidence of proposed subcontract performance with certified DBE firms to achieve the required dollar amount necessary to achieve the percentage goal.

b. Bidders may be considered as presumptively responsive if they have failed to satisfy the advertised DBE goal set for the proposed contract but have certified in their bid that good faith efforts have been expended to meet the goal and that they will continue during the performance of the contract to locate, solicit, and involve DBE firms in contract performance. Documentation of the bidder's good faith efforts must be included with the bid package of the DEPARTMENT's review and assessment. Failure to do so shall render the bid non-responsive. The DEPARTMENT will reject the bid.

17. Satisfactory Completion of a subcontract occurs when:

a. The subcontractor has satisfactorily completed in all respects the work under the Contract.

b. The Contractor and the subcontractor have notified the ENGINEER in writing that the work of the subcontractor has been completed.

c. The Engineer will be given a reasonable length of time to check quantities if necessary. Checking quantities does not guarantee the absolute correctness of quantities.

d. The Contractor and the subcontractor have satisfactorily executed and delivered to the ENGINEER all documents, certificates and proofs of compliance required by the Contract. The satisfactory execution and delivery of these documents, certificates and proofs of compliance to the ENGINEER is a material requirement of the contract.

e. The ENGINEER accepts in writing the work of the subcontract.

f. Satisfactory Completion refers only to payment of retainage and accrued interest. A determination of Satisfactory Completion and payment in full for work performed does not relieve the contractor nor the subcontractor from any contractual obligation.

18. Satisfactory Performance means work performed and materials furnished in conformity with the plans and specifications.

19. Service Provider means a broker or a middle man. A business person who buys, sells or performs a service for another in exchange for a mark up or commission.

20. Socially and Economically Disadvantaged Individuals means any individual who is a citizen (or lawful admitted permanent resident) of the United States and who is:

a. Any individual who the DEPARTMENT finds to be a socially and economically disadvantaged individual on a case-by-case basis.

b. Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

(1) “Black Americans,” which includes persons having origins in any of the black racial groups of Africa;

(2) “Hispanic Americans,” which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American or other Spanish or Portuguese culture or origin, regardless of race;

(3) “Native Americans,” which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

(4) "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S.Trust Territories of the Pacific Islands, (Republic of Palau), the Commonwealth of the Northern Mariana Islands, Macao, Fiji, Tonga, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;

(5) "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka.

(6) Women.

(7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

21. Subcontractor

A subcontracting arrangement is generally considered to exist when a person or firm assumes an obligation to perform a part of the contract work and the following conditions are present.

a. The person or firm performing the work is particularly experienced and equipped for such work.

b. Compensation is related to the amount of work accomplished rather than being on an hourly basis.

c. Choice of work methods, except as restricted by the specifications, and the furnishing and controlling of labor and equipment are exercised by the subcontractor with only general supervision being executed by the prime contractor.

d. Personnel involved in the operation are under the direct supervision of the subcontractor and are included on the subcontractor's payroll.

All conditions involved shall be considered and no one condition alone will normally determine whether a subcontract actually exists. In all cases, a DBE subcontractor must be an independent organization, and the ownership and control by the socially and economically disadvantaged individual(s) must be real and continuing. The prime contractor, a subcontractor, or a supplier shall not be responsible for the various operating and management activities of a DBE firm.

22. Supplier

Provides or furnishes materials, goods or services that may be incorporated into the project. The supply transaction is to be documented by an appropriate purchase agreement that includes the required provisions for Federal-aid construction projects.

23. UUCP The Utah Unified Certification Program (UUCP) provides "one-stop shopping" to applicants for DBE certification, such that an applicant is required to apply only once for a DBE certification that is honored by all recipients of Federal-aid Funds in the State of Utah.

C. DETERMINATION OF DBE CONTRACTOR'S ELIGIBILITY BY UUCP

1. Any Contractor may apply to the UUCP for status as a DBE. Applications shall be made on forms provided by the UUCP entitled "UNIFORM CERTIFICATION APPLICATION" or "Information for Determining DBE Joint Venture Eligibility," Form No. R-817. Application need not be made in connection with a particular bid. Only work contracted to certified DBE prime contractors or subcontractor to firms that have applied for and have been granted status as a DBE by the UUCP shall be considered toward contract goals as established in Subsection A.

2. It shall be the Contractor's responsibility to submit a DBE application so that the UUCP has time to review it. The UUCP will review applications in a timely manner but is not committed to approve DBE status within any given period of time. The UUCP must have ample lead time to review, evaluate, and verify information provided with a application.

3. The DEPARTMENT shall maintain a UUCP Unified DBE Directory of DBE Contractors, vendors, service providers and suppliers that is updated as changes occur for the purpose of providing a reference source to assist any bidder in meeting the requirements of this bid condition. Bidders must use the most current DBE information available on the web site when submitting bids. A current UUCP DBE directory representing certified DBE Contractors is available through the UDOT Civil Rights Office, and also on the Internet at (click on this link):

http://www.udot.utah.gov/index.php?m=c&tid=198

An electronic file of the UUCP DBE Directory is available for downloading to use in the Electronic Bidding System (EBS) at the following URL (click on this link):

http://www.udot.utah.gov/index.php/m=c/tid=317

4. In meeting the requirements of this bid condition, bidders are in no way limited to the DBE Directory referred to in 3 above in seeking out and negotiating with the DBE Contractors and determining which items of work shall be subcontracted to DBE Contractors. Bidders shall exercise their own judgments in selecting any subcontractor to perform any portion of the work.

   The UUCP prior to bid opening must grant DBE status to any DBE Contractor or DBE Joint Ventures. DBE credit will not be allowed toward *race conscious* goals for a firm or joint venture that has not been DBE certified by the UUCP.

D. BIDDING REQUIREMENTS

All bidders must satisfy the bidding requirements of this part. A DBE prime contractor's performance does not count toward fulfilling the DBE goal. A prime bidder who is a DBE contractor shall meet the DBE goal by using DBE subcontractors or by using good faith efforts.

1. DBE Bid Assurance

   a. Race Conscious Goal
   For a bid with a DBE goal greater than 0.0 percent to be considered responsive, *Part* A of the DBE Bid Assurance must be completed and included in the BID PROPOSAL, certifying that they will meet or exceed the Goal for Bid Evaluation established in Subsection A, or that they fail to meet the goal but have and will put forth good faith effort to meet or exceed the goal of the DBE program. *The EBS software based upon the entry of the DBE Commitment and/or the Good Faith Documentation into EBS will complete part A of the DBE Bid Assurance*. In either event, the Contractor shall continue efforts to consider and utilize DBE firms during the performance of the contract.

   b. Race Neutral Goal
   For a bid with a DBE goal of 0.0 percent to be considered responsive, *Part B* of the DBE Bid Assurance must be included in the BID PROPOSAL certifying that the Bidder has utilized equal opportunity action to allow DBE's to compete for and perform on subcontracts. *Part B* of the DBE Bid Assurance will be completed based upon the following information entered into EBS:

      (1) Bids with no subcontracting opportunities
      Bidders who intend to do all the work with their own organization will indicate this in EBS on the Bid Submission Checklist and Forms window. EBS will subsequently indicate on Part B of the DBE Bid Assurance that the Bidder does not intend to sublet a portion of the contract work.

After the award of the bid, in the event that a Contractor indicates that he does not intend to sublet any work and subsequently determines to sublet a portion of the work, the Contractor:

(a) must justify why subcontract quotes were not a part of the Bid Proposal,

(b) must utilize equal opportunity action to allow DBEs to compete for and perform on the work to be sublet,

(c.) must submit the required Race Neutral Documentation with the proposed subcontract.

NOTE: The Contractor may use the 'DBE Contact Log' and 'Quote Comparison' functions in EBS to develop the above requirements for documentation.

(2.) Bids with subcontracting opportunities
Race Neutral measure or program is one that is, or can be, used to assist all small businesses. UDOT must meet the maximum feasible portion if its overall DBE goal by using race -neutral means of facilitating DBE participation.

Bidders who solicit non-DBE subcontract quotes will utilize equal opportunity action to allow DBEs to compete for and perform on subcontracts. If the Bidder has selected 'Intend to Sublet' on the 'Bid Submission Checklist and Forms' window in the EBS software, Part B of the DBE Bid Assurance will indicate that the Bidder intends to sublet a portion of the contract work.

The results of the equal opportunity actions will be included with the EBS prepared Bid Proposal as a *Race Neutral Documentation*. Part B of the Bid Assurance Form will indicate the existence of any of the following types of Race Neutral Documentation that the Bidder has entered into EBS:

(a) DBE Commitment

(b) DBE Contact Log

(c) Quote Comparison

In either event, the Contractor shall continue efforts to consider and utilize DBE firms during the performance of the contract.

2. DBE Commitment

For a bid to be considered responsive, Bidders shall submit the following information regarding DBE compliance with the EBS prepared Bid Proposal:

Submit a DBE Commitment of work that will be subcontracted to certified DBE firm(s) as listed in the UUCP's Directory or DBE firms that have been approved by the UUCP prior to bid opening.

a. The names of DBE firms that will participate in the contract;

b. A specific description of the work each named DBE firm will perform (list specific bid items). Listed bid items shall be considered to be committed in their entirety unless Bidders designate otherwise in their DBE Commitment.

(1.) If mobilization is a bid item that is partially committed to a DBE, indicate the dollar amount of the DBE mobilization.
(2.) If a partial quantity is committed to a DBE, indicate the quantity committed to the DBE.

(3.) If a partial performance of an item is committed to a DBE, explain what part of the item the DBE will perform;

c. The dollar amount of participation by each named DBE firm;

d. If the contract goal is not met, evidence of good faith efforts.

The DBE Commitment is to be included in the bid prepared within, and said information will be kept confidential and will not be reviewed unless the Contractor is otherwise determined to be the low Bidder or the DEPARTMENT elects to review said information in making its determination as to award of the contract.

3. Race Neutral Commitment

For a bid to be considered responsive, Bidders shall submit the following information regarding equal opportunity compliance with their EBS prepared Bid Proposal:

Submit a Race Neutral DBE Commitment of work that will be subcontracted to certified DBE firm(s) as listed in UUCP DBE Directory or DBE firms that have been approved by the DEPARTMENT prior to bid opening. The DBE Commitment will include:

a. The bid item(s) or work classification(s) that will be subcontracted;

b. The DBE firms that have been contacted. A reasonable number of DBEs available to perform the anticipated subcontract work must be contacted. The DBE firms must be given a reasonable amount of time to develop subcontract quotes.

c. The results of the contacts with the DBE firms

d. Name(s) of anticipated DBE subcontractor(s)

e. Anticipated work items to be performed by DBE(s)

f. Anticipated dollar amount of subcontract(s).

A specific description of the work each named DBE firm will perform (list specific bid items). Listed bid items shall be considered to be committed in their entirety unless Contractors designate otherwise in their DBE commitment.

(1.) If mobilization is a bid item that is partially committed to a DBE, indicate the dollar amount of the DBE mobilization.

(2.) If a partial quantity is committed to a DBE, indicate the quantity committed to the DBE.

(3.) If a partial performance of an item is committed to a DBE, explain what part of the item the DBE will perform;

NOTE: In the EBS (Electronic Bidding System):
Use the quote comparison to document item (a)
Use the contact log to document items (b) and (c).
Use the DBE commitment to document items (d), (e), and (f).

The *Race Neutral Documentation* submitted in the EBS prepared bid, will be kept confidential and not reviewed unless the Contractor is otherwise determined to be the low Bidder or the DEPARTMENT elects to review said information in making their determination as to award of the contract.

4. <u>DBE Written Confirmation</u>

Low Bidder shall submit to the Director of Construction & Materials within three (3) work days after the bid opening written confirmation from each DBE that it is participating in the contract as provided in the Prime Contractor's DBE Commitment or Race Neutral Documentation. The written confirmation shall include the following information:

a. A description of the work that will be performed (list specific bid items). Listed bid items shall be considered to be committed in their entirety unless Contractors designate otherwise in their DBE commitment.

(1) If mobilization is a bid item that is partially committed, please confirm the dollar amount of the mobilization to be performed.

(2) If a partial quantity is committed, confirm the quantity to be performed.

(3) If a partial performance of an item is committed, confirm what part of the item will be performed.

(4) Unit bid prices for each bid item that is committed to a DBE.

(5) Total dollar amounts (mathematical extensions) for each bid item that is committed to a DBE

b. The dollar amount of participation by each named DBE firm.

5. Good Faith Efforts

Bidders who fail to meet the DBE goal for bid evaluation must demonstrate with documentary evidence that they made good faith efforts to do so. Bidders are required to include the Good Faith Efforts Documentation with the EBS prepared Bid Proposal. The said information will be kept confidential and not reviewed unless the Bidder is otherwise determined to be the low Bidder or UDOT and authorized representatives elect to review said information in making their determination as to award of the contract. For the bid to be considered responsive, Bidders shall include with the BID PROPOSAL specific documentary evidence that good faith efforts have been made to meet the goal.

Attached hereto and marked Exhibit A, and by this reference made a part hereof, is a list of actions that may be used to prove the kinds of efforts prospective Bidders should consider in their attempts to demonstrate good faith efforts. The list of actions, as contained in Exhibit A, is not intended to be an exclusive list of efforts that a prospective Bidder may wish to consider in demonstrating good faith efforts to satisfy DBE participation requirements. The determination of good faith efforts shall be based upon the information and documentation of the actions supplied by the Bidder with the bid proposal. The DEPARTMENT reserves the right to investigate and verify such information or to request the low dollar Bidder to clarify information submitted at the time of bid.

6. Award of the Contract

The award of the contract, if awarded, will be made to the apparent successful responsive, responsible Bidder who submitted a reasonable bid for the contract and has complied with this Subsection D.

7. Administrative Reconsideration

Good faith efforts as used herein shall be determined on a case by case basis. If it is determined that the apparent low Bidder has failed to meet the requirements of Exhibit A, the bidder will be provided an opportunity for administrative reconsideration.

a. Official(s) who did not take part in the original determination will perform the administrative reconsideration..

b. The Bidder will have the opportunity to provide to written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so.

c. The Bidder will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so.

d. The Bidder will be notified in writing of the decision and the basis for the decision.

e. The reconsideration decision is administratively final and is not appealable to FHWA nor to the DOT.

E. COUNTING DBE PARTICIPATION TOWARD GOALS FOR BID EVALUATION

1. The DEPARTMENT will recognize and grant DBE credit toward the goal for bid evaluation (*race conscious* goals) for work committed to DBE subcontractors ONLY in the types of work for which DBE certification has been granted by the UUCP prior to bid opening. It is necessary that all bidders refer to the UUCP DBE Directory for direction and guidance. A current copy of the DBE directory is available through the Civil Rights Office and on the Internet at (click on this link):

http://www.udot.utah.gov/index.php?m=c&tid=198

An electronic file of the DBE Directory is available for downloading to use in the Electronic Bidding system (EBS) at the following URL (click on this link):

http://www.udot.utah.gov/index.php/m=c/tid=317

2. The DEPARTMENT will grant DBE credit toward *race neutral* goals for work performed by firms who are not DBE certified prior to bid opening or who bid types of work for which DBE certification has not been granted by the DEPARTMENT prior to bid opening but subsequently are granted DBE certification.

3. Commitments to DBEs that exceed the Goal for Bid Evaluation will be considered as both race conscious and race neutral. The dollar amount of the Goal for Bid Evaluation will be considered to be race conscious participation. Any dollar amounts in excess of the Goal for Bid Evaluation will be considered as race neutral participation.

F. COUNTING DBE PARTICIPATION TOWARD GOALS FOR PERFORMANCE

Subcontracts to DBEs that exceed the *Goal For Bid Evaluation* will be considered in part as race conscious participation and in part as race neutral participation. Any dollar amounts in excess of the *Goal For Bid Evaluation* will be considered as race neutral participation.

It is intended that the Contractor shall utilize the subcontractors designated in the DBE Commitment in the performance of the contract. Any changes in the Contractor's DBE Commitment, such as substitution of a DBE subcontractor, substitution of contract items, or decrease in total dollar amount must be approved by the DEPARTMENT and must be covered by a Change Order. Unauthorized substitutions or eliminations may result in the imposition of sanctions. Failure to meet the Goal for Performance, that is established at the time of award by the Contractor's DBE Commitment, without adequate justification, including concurrence of the ENGINEER and Civil Rights Manager, shall result in the imposition of sanctions as provided in Part I of this Special Provision.

1. Only the value of the work actually performed by the DBE will count toward DBE goals.

2. Contractors may count toward their contract goals a portion of the total dollar value of a contract with a joint venture eligible under the standards of this bid condition equal to the percentage of the ownership and controls of the DBE partner in the joint venture.

3. The ENGINEER will recognize and grant DBE credit for work subcontracted and performed by DBE subcontractors ONLY in the types of work for which DBE certification has been granted by the UUCP prior to bid opening. It is necessary that all Bidders refer to the UUCP'DBE Directory for direction and guidance. A current copy of the UUCP DBE directory is available through the Civil Rights Office and on the Internet at (click on this link):

http://www.udot.utah.gov/index.php?m=c&tid=198

An electronic file of the DBE Directory is available for downloading to use in the Electronic Bidding system (EBS) at the following URL (click on this link):

http://www.udot.utah.gov/index.php/m=c/tid=317

4. Contractors may count toward their goals only the value of the work actually performed by the DBE toward the DBE goals.

    a. Work performed by the DBE's own forces using "regular employees" and "regular equipment."

    b. The cost of supplies and materials obtained and purchased by the DBE and equipment leased for the work of the contract.

    c. Work that a DBE subcontracts to a lower tier DBE firm.

5. Contractors may not count toward the DBE goals:

    a. Supplies and material purchased and equipment leased by the DBE from the prime Contractor or its affiliates or another subcontractor on the project.

    b. Work that a DBE subcontracts to a lower tier non-DBE firm.

6. Contractors may count toward their goals only expenditures to a DBE that performs a commercially useful function in the work of the contract.

    a. A DBE performs a "commercially useful function" when it is responsible for the execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

    b. The DEPARTMENT shall evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

    c. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, the DEPARTMENT must examine similar transactions, particularly those in which DBEs do not participate.

d. A DBE does not perform a commercially useful function if it does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved.

7. The DEPARTMENT shall use the following factors in determining whether a DBE trucking company is performing a commercially useful function:

a. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

b. The DBE must be responsible for the management and supervision of the entire trucking arrangement for the purpose of meeting DBE goals.

c. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks its owns, insures, and operates using drivers it employs.

d. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

e. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit *for the total value of the transportation services provided by non-DBE lessees not to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangement.*

Example: *Leases two trucks from DBE Firm Y and six trucks from non-DBE Firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. With respect to the other two trucks provided by Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks Firm X receives as a result of the lease with Firm Z.*

f. For purposes of this paragraph (d), a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

8. Contractors may count expenditures with DBEs for materials or supplies as provided in the following:

a. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies counts toward DBE goals.

For purposes of this paragraph, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

b. If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies counts toward DBE goals.

For purposes of this paragraph, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

(1) To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

(2) A firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating or maintaining a place of business if the firm both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis.

(3) Packagers, brokers, manufacturers representatives, or other persons or firms who arrange, or expedite, transactions are not regular dealers.

(4) A DBE trucking company that picks up a product from a manufacturer or regular dealer and delivers the product to the Contractor performs a delivery service. Credit will not be given based on a percentage of the cost of the product; credit will be allowed only for the cost of the transportation service.

9. If the materials or supplies are purchased from a service provider, the fees or commission charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies, count toward the DBE goals.

A Service Provider is a business that is neither a manufacturer nor a regular dealer but simply transfers title of a product from manufacturer to ultimate purchaser or a firm that puts a product into a container for delivery. A service provider charges a fee or a commission for assistance in the procurement of the materials and supplies, or fees or transportation for the delivery of materials or supplies required on a job site.

a. Only the fees, commissions, or transportation performed by the DBE service provider count toward the DBE goals. The DEPARTMENT must determine that the fees are reasonable and not excessive as compared with fees customarily allowed for similar services.

b. No portion of the cost of the materials and supplies count toward the DBE goals. Documentary evidence of the supply agreements, i.e., sales contract, purchase order, etc., shall be submitted to the Resident Engineer or Consultant Engineer at the Preconstruction Conference. The agreement shall set forth the estimated quantities, unit prices, total dollar amounts, material guarantees, delivery, and payment requirements including the requirements listed part E, 4, e, of this DBE Special Provision.

10. Prompt payment for the work accomplished is an integral part of the concept of commercially useful function.

See Section F, Subsection 6,a for a definition of “commercially useful function.”

G. CONTRACTOR’S RESPONSIBILITY

1. It is the Contractor’s responsibility to determine the level of professional competence and financial responsibility of any proposed DBE subcontractor. The Contractor shall ascertain that the proposed DBE subcontractor is particularly experienced and equipped for the work of the subcontract.

2. It is the Contractor’s responsibilities to monitor and assure that DBE’s listed to fulfill DBE goals perform a commercially useful function.

H. DBE SUBCONTRACTOR'S FAILURE TO PERFORM SUCCESSFULLY

If, during the performance of the contract, the Prime Contractor determines that a DBE subcontractor is unable to perform successfully, the Contractor shall make good faith efforts to replace the DBE subcontractor with another DBE to fulfill the Goal for Bid Evaluation. For Race Conscious DBE participation, the Contractor shall consider the uncompleted DBE committed work items as well as other work items as a part of the good faith efforts. All substitutions of DBE subcontractors shall receive prior approval by the DEPARTMENT.

The Contractor shall not substitute DBE subcontractor(s), work item(s), nor decrease dollar amount(s) as indicated in the Contractor's DBE Commitment without prior submission of written justification to the ENGINEER and without prior approval of the ENGINEER and the Civil Rights Manager.

The Contractor shall not substitute DBE subcontractor(s), work item(s), nor decrease dollar amount(s) as indicated in the Contractor's DBE Commitment Substitutions without prior submission of a written statement from the DBE consenting to the substitution or decrease and holding the ENGINEER harmless for approving the substitution.

Unauthorized substitutions of the DBE(s), underruns of work item(s), or decreases in dollar amount(s) may result in the imposition of sanctions as allowed under Section I.

UDOT reserves the right to authorize completion of the work that was subcontracted to a DBE who is unable to perform successfully by either of the following methods:

1. Approve, at no additional cost to the DEPARTMENT, a replacement DBE subcontractor and, when appropriate, modify the contract to provide for reasonable extra time necessary to obtain a DBE replacement at no additional cost to the DEPARTMENT.

2. Direct the Contractor to perform at unit bid prices. In the event this option is selected, the percentage DBE goal will be adjusted as may be appropriate.

I. SANCTIONS

1. The Contractor's DBE Commitment becomes a 3-part commitment comprised of the DBE Contractor(s), work item(s) and dollar amount(s). The Commitment becomes a contract specification upon award of the contract and becomes the minimum goal for contract performance.

If the Contractor fails to achieve the minimum goal, established in the contract at the time of the award of the contract or later modified, the contract payments shall be reduced as a liquidated damage and not as a penalty by an amount equal to the dollar amount of work not performed by the DBE. The dollar amount of any sanction will be computed using the unit prices indicated in the DBE subcontract

Exceptions:

a. Any authorized adjustment in the DBE Commitment that has been approved by the ENGINEER and Civil Rights Manager.

b. Race neutral participation.

2. The ENGINEER shall deduct maximum points for *Compliance with EEO* when completing the *Contract Performance Report.*

J. RECORD KEEPING

1. The DEPARTMENT must create and maintain a Bidders list consisting of all firms bidding on prime contracts and bidding or quoting subcontractors on DOT-assisted projects. For every firm, the following information must be submitted annually:

a. Firm name

b. Firm address

c. Firm's status as a DBE or non-DBE

d. Age of firm

e. Annual gross receipts of the firm.

Every firm bidding or quoting as a prime or subcontractor at any level on DOT-assisted projects must register annually with UDOT.

NOTE: Items (a) and (b) should be completed in the EBS software by using the 'Quote Comparison' and submitted with your bid.

2. With the bid or no later than 10 work days after bid opening date, each and every prime bidder must submit to The DEPARTMENT a list of all firms bidding and/or quoting as subcontractors, service providers or suppliers.* The Prime Bidder must also submit for each and every firm sub-quoting the following information:

a. Firm Name

b. Firm address

c. Work classification(s) bid by subcontractor, service provider or supplier:

(1) Building
(2) Concrete: Curb & gutter, Flatwork, Inlet Boxes, etc.
(3) Concrete: Structural
(4) Consulting firms
(5) Demolition
(6) Electrical: Hwy lighting, signals & fiber optics
(7) Equipment rentals and sales
(8) Excavation
(9) Fencing
(10) Grading
(11) Guardrail
(12) Landscaping & erosion control
(13) Miscellaneous
(14) Painting: Highway structures
(15) Painting: Highway striping & painted messages
(16) Paving: Asphalt highway & runway, etc.
(17) Paving: Concrete
(18) Paving: Miscellaneous
(19) Pipe Culverts, drainage, sewer & water
(20) Reconstruction : Manholes, etc.
(21) Rotomilling
(22) Sawing & sealing
(23) Signs permanent
(24) Steel reinforcing
(25) Steel structural
(26) Surveying
(27) Traffic Control: Flagging
(28) Traffic Control: Temp. Signs and Devices
(29) Trucking
(30) Supplier: Manufacturer
(31) Supplier: Regular Dealer
(32) Supplier: Service Provider

*NOTE: This requirement can be met with the 'Quote Comparison' function in EBS. The report must be printed and faxed to the Civil Rights Department at (801) 965-4101.

Exhibit A

Suggested Actions and Required Documentation to Demonstrate
Good Faith Efforts to Comply With DBE Requirements

A Bidder must show that it took necessary and reasonable steps to achieve a DBE goal that, by their scope, intensity, and appropriateness, can reasonably be expected to fulfill the program requirement. The efforts employed should be those that would be taken if a Bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract. Goal. Mere *pro forma* efforts are not good faith efforts to meet the DBE contract requirements.

Documentary evidence of each action taken must be submitted with the Bid Proposal.

The following is taken, with some modification, from CFR 49 Part 26, Appendix A. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive.

GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When the DEPARTMENT establishes a contract goal on a Federal aid contract, a Bidder must, in order to be responsive, make good faith efforts to meet the goal. The Bidder can meet this requirement in either of two ways:

A. The Bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose.

B. If it doesn't meet the goal, the Bidder can document adequate good faith efforts. This means that the Bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part that, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which the DEPARTMENT has established a contract goal, CFR 49, Part 26 requires UDOT to use the good faith efforts mechanism of this part. It is up to the DEPARTMENT to make a fair and reasonable judgment whether a Bidder that did not meet the goal made adequate good faith efforts. It is important for the DEPARTMENT to consider the quality, quantity, and intensity of the different kinds of efforts that the Bidder has made. The efforts employed by the Bidder should be those that one could reasonably expect a Bidder to take if the Bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. The DEPARTMENT emphasizes, however, that its determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.

III The U. S. Department of Transportation also strongly cautions the DEPARTMENT against requiring that a Bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the Bidder makes an adequate good faith efforts showing. This rule specifically prohibits UDOT from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions that UDOT should consider as part of the Bidder’s good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The Bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The Bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

D. Negotiating in good faith with interested DBEs.

(1) It is the Bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(2) A Bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration.

(a) The fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable.

(b) No specific price differential has been established by 49 CFR 26. This approach allows flexibility.

(c) Along with the reasonableness of the cost necessarily comes the fact that prime Contractors are not expected to bear unreasonable costs.

(d) Any burden that a non-DBE subcontractor might face is also limited by the reasonableness of competing bids.

(3) The ability or desire of a prime Contractor to perform the work of a contract with its own organization does not relieve the Bidder of the responsibility to make good faith efforts. Prime Contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

(4) The ability or desire of a prime Contractor to bundle the work of a subcontractor who wishes to perform all the work of the subcontract with its own organization does not relieve the Bidder of the responsibility to require a subcontractor to make good faith efforts. Subcontractors are not required to accept higher quotes from lower tier DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women Contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

NOTE: The DBE 'Contact Log' in EBS, submitted as part of the Bid Proposal, can be used to document the following efforts:

IV. A.
IV. C.
IV. D. (1)

The 'Quote Comparison' in EBS, submitted as part of the Bid Proposal, can be used to document the following efforts:

IV. B.
IV. D. (3)

V. In determining whether a Bidder has made good faith efforts, the DEPARTMENT may take into account the performance of other Bidders in meeting the contract. For example, when the apparent successful Bidder fails to meet the contract goal, but others meet it, UDOT may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful Bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other Bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful Bidder having made good faith efforts.

Submit with the Bid Proposal documentary evidence to prove that good faith efforts were accomplished:

1. Submit copies of all solicitations: correspondence, faxes, advertisements, telephone logs with dates, times, names of persons contacted, nature of conversation, DBEs' responses, and etc.

2. If DBEs submitted quotes that were not used because the range of additional costs was determined to be excessive or unreasonable, submit the range that has been determined by the Bidder to be a reasonable range of additional costs and explain how that range was determined.

3. As a part of demonstrating a reasonable range of additional costs, submit copies of all subcontractor quotes, copies of spread sheet(s) which compare all DBE quotes with non-DBE quotes and which include bid item(s) quoted, work classifications, quantities, prices, and dollar amounts.

4. Submit a narrative of specific names and types of information, assistance, considerations given, and efforts to assist DBEs under Item IV, subparts C through F.

Federal Projects With 8 ½ x 11 Plan Sheets

DBE BID ASSURANCE
COMPLETE ONLY PART A. OR PART B.

PART A. RACE CONSCIOUS DBE PARTICIPATION
SPECIFIC ASSIGNED *CONTRACT DBE GOAL* FOR BID EVALUATION_____PERCENT

If the DBE goal which is indicated in Section A, CONTRACT GOAL, of APPENDIX A, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE (DBE) is greater than 0.0 percent, complete only Part A, and submit *DBE Commitment*, and if applicable, *Documentation of Good Faith Efforts*.

By signing the BID REPORT (either manually or electronically), it is understood that those individuals who sign as owners or authorized representatives of the Bidder, have read and are familiar with APPENDIX A, SPECIAL PROVISION, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE and hereby certify that good faith efforts have been utilized to meet or exceed the goal of the DBE Program as established by the DBE Special Provision.

Indicate intended DBE commitment.

_____ We intend to meet or exceed the contract goals as per the DBE Commitment which is submitted with the Bid Proposal.

RACE CONSCIOUS AND RACE NEUTRAL COMMITMENT _____ PERCENT

_____ We fail to meet the advertised goal. This firm commits to DBE participation as per the DBE Commitment that is submitted with the EBS Bid Proposal and to continue Good Faith Efforts throughout the performance of the project. Documentation of Good Faith Efforts is submitted with the Bid Proposal, including:

1. DBE Contact Log Report
2. Quote Comparison Report

PART B. RACE NEUTRAL DBE PARTICIPATION
ASSIGNED *CONTRACT DBE GOAL* FOR BID EVALUATION
_____ PERCENT

If the DBE goal, which is indicated in Section A, CONTRACT GOAL, of APPENDIX A, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE (DBE) is 0.0 percent, complete only Part B and submit *Race Neutral DBE Information*.

Federal Projects With 8 ½ x 11 Plan Sheets

By signing the BID REPORT (either manually or electronically), it is understood that those individuals who sign as owners or authorized representatives of the Bidder, have read and are familiar with APPENDIX A, SPECIAL PROVISION, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE and hereby certify that equal opportunity action has been utilized to allow DBEs to compete for and perform on subcontracts.

_____ We do not intend to sublet a portion of the contract work.

_____ We intend to sublet a portion of the contract work. Our firm has taken equal opportunity action to allow DBEs to compete for and perform on subcontracts. Documentation of Race Neutral efforts is submitted with the Bid Proposal, including:

_____ 1. RACE NEUTRAL DBE COMMITMENT _____ PERCENT

_____ 2. DBE Contact Log Report

_____ 3. Quote Comparison Report

XIII. Attention Contractors

E.E.O. Affirmative Action Requirements on Federal and Federal-Aid Construction Contracts of $10,000 or More

Include the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity, Executive Order (EO) 11246, as amended (incorporated by reference & Appendix A - below) and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in §60-4.3 (incorporated by reference) in all requests for bids/solicitations on all contracts and subcontracts of $10,000 or more

Include in Appendix A, Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity, the goals established by the Office of Federal Contract Compliance Programs (OFCCP) for minority and female participation in each craft on all contracts and subcontracts.

APPENDIX A (EO 11246)

The OFCCP goals for minority representation in each trade are shown below. The goal for female utilization (6.9 percent) applies to all contracts and subcontracts irrespective of their geographical location.

COUNTY	GOAL	COUNTY	GOAL	COUNTY	GOAL
Beaver	12.6	Box Elder	5.1	Cache	5.1
Carbon	5.1	Daggett	5.1	Davis	6.0
Duchesne	5.1	Emery	5.1	Garfield	12.6
Grand	10.2	Iron	12.6	Juab	5.1
Kane	12.6	Millard	5.1	Morgan	5.1
Piute	5.1	Rich	5.1	Salt Lake	6.0
San Juan	10.2	Sanpete	5.1	Sevier	5.1
Summit	5.1	Tooele	6.0	Uintah	5.1
Utah	2.4	Wasatch	5.1	Washington	12.6
Wayne	5.1	Weber	6.0		

These goals are applicable to all contractors' or subcontractors' construction work (whether or not it is Federal or Federally assisted) performed in the covered area.

The Bidder's attention is called to the "Equal Opportunity Clause" (form FHWA 1273- II 1 b, included in this contract) and the "Standard Federal Equal Employment Specifications" set forth in 41 CFR Part 60-4 (incorporated by reference).

Compliance with the Executive Order and the regulations in 41 CFR part 60-4 is based on the implementation of the "Equal Opportunity Clause," specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and the efforts to meet the goals.

Provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification lists the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract will be performed.

Under Section 303 of EO 11246, only the U. S. Department of Labor (DOL) has the authority to determine compliance with EO 11246 and its implementing regulations. The Federal Highway Administration (FHWA) and the State highway agency (UDOT) do not have independent authority to determine compliance with EO 11246, 41 CFR Chapter 60, or the minority and female participation goals established by the Office of Federal Contract Compliance Programs (OFCCP), pursuant to 41 CFR Chapter 60.

If the State highway agency (UDOT) or the FHWA becomes aware of any possible violations of EO 11246 or 41 CFR Chapter 60, each has the authority and the responsibility to notify the OFCCP.

APPENDIX B

As used in these specifications:

a. Covered area: The geographical area described in the solicitation from which this contract resulted;

b. Director: Director, Office of Federal Contract Compliance Programs, United State Department of Labor, or any person to whom the Director delegates authority;

c. Employer identification number: The Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. Minority includes:

   (i) Black (all persons having origins in any of the black African racial groups not of Hispanic origin);

   (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

   (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

   (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

XIV. Specific Equal Employment Opportunity Responsibilities

1. General

   a. The State Transportation Agency (STA) and Federal Highway Administration (FHWA) have the authority and the responsibility to ensure compliance with 23 USC Section 140 and Title VI of the Civil Rights Act of 1964, as amended, and related regulations, including 49 CFR Parts 21 and 23, and 23 CFR Parts 200, 230, and 633. Pursuant to this authority, the STA and the FHWA will conduct compliance reviews of contractors on federally funded highway projects to determine compliance with these laws and related regulations. The STA will prepare complete, written reports of findings of the compliance reviews. The FHWA will analyze the reports, and the evidence on which they are based.

   b. A contractor's EO requirements are in the contract provisions referenced in the FHWA-1273 (included herein). These include contractor acceptance of Section II, 1 c, and the obligation of the contractor to comply with specific EO activities at a minimum.

   c. Submit form PR-1391 in July and at other times when such information is required by the STA or the FHWA; and submit other documentation and reports as requested by the STA or the FHWA.

2. Equal Employment Opportunity (EEO)

   a. Where minorities and women have been excluded from certain classifications in a contractor's work force, the EEO affirmative action requirements specified in the contract will be implemented in good faith to provide EEO.

   b. The contractor will use the avenue afforded by the Training Special Provision (included herein) to increase minority and female employment in crafts where they have been underrepresented.

3. Minority and Female Average Availability Percentages – Utah

   a. Average percentages for minority (M) and female (F) availability in each trade, by County, are shown below. Availability is defined as "an estimate of the number of qualified minorities or women available for employment in a given job group."

COUNTY	M	F	COUNTY	M	F	COUNTY	M	F	COUNTY	M	F
Beaver	6.8	3.0	Box Elder	9.9	5.0	Cache	9.9	5.0	Carbon	12.3	3.0
Daggett	12.3	3.0	Davis	8.9	3.0	Duchesne	12.3	3.0	Emery	15.5	5.0
Garfield	15.5	5.0	Grand	15.5	5.0	Iron	6.8	3.0	Juab	8.2	4.0
Kane	15.5	5.0	Millard	6.8	3.0	Morgan	11.1	3.0	Piute	15.5	5.0
Rich	9.9	5.0	Salt Lake	21.6	5.0	San Juan	15.5	5.0	Sanpete	8.2	4.0
Sevier	15.5	5.0	Summit	11.1	3.0	Tooele	8.2	4.0	Uintah	12.3	3.0
Utah	11.9	4.0	Wasatch	11.1	3.0	Washington	10.0	4.0	Wayne	15.5	5.0
Weber	17.8	5.0									

b. The use of these average percentages in no way precludes the contractor from performing and documenting good faith efforts to recruit and employ minorities and females.

4. Compliance Determinations

a. The list below is a set of "Good-Faith Efforts" criterion established in FHWA's regulatory and policy requirements that may be used to determine a contractor's good faith efforts:

1. Contractor's EEO Policy
2. Dissemination of the EEO Policy
3. Authority and Responsibility of EEO Officer
4. Periodic EEO meetings (EEO indoctrination)
5. Notices/posters on bulletin board
6. Advertising as an "EEO Employer"
7. Recruitment – Systematic and direct recruitment efforts with sources likely to yield minorities and women
8. Educate all new supervisors within 30 days of reporting to duty
9. Encourage present employees to refer minorities and women
10. Evaluates the spread of wages to determine whether discrimination exists
11. Investigates all complaints, promptly, and appropriate corrective action is taken
12. Assist in locating, qualifying, and increasing the skills of minorities and women
13. Fully uses training programs and advises employees and applicants of opportunities
14. Minorities and women exist in contractor's training program
15. Ensure nonsegregated facilities
16. Minorities and women are employed in all occupations, crafts, and job classifications on an equal basis
17. Procedures establishing the monitoring of subcontractors' compliance with nondiscrimination, EO and EEO obligations
18. The need for adequate records and reports

19. Minorities and women reach accumulating work hours expected based on their representation

b. Affirmative Action is determined based on the evaluation of the contractor's compliance with all of the above good faith efforts and on the contractor's efforts to achieve maximum results from the actions.

c. A contractor is in compliance when there is no evidence of discrimination in employment, training, DBE, Indian Preference provisions, equal opportunity requirements, or evidence every good faith effort has been made.

5. Training Special Provisions

This Training Special Provisions supersedes subparagraph II 6b of the FHWA-1273, and is an implementation of 23 U.S.C.C.140 (a).

Provide training as follows as part of the equal employment opportunity affirmative action program:

Provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under the special provision is 0 (amount to be filled in by the State Highway Department (STA)).

If a portion of the contract work is subcontracted, determine how many, if any, of the trainees are to be trained by the Subcontractor. Make this training special provision applicable to the subcontract. Retain the primary responsibility for meeting the training requirements imposed by this special provision. Where feasible, 25 percent of apprentices or trainees in each occupation will be in their first year of apprenticeship or training.

Distribute the number of trainees among the work classifications on the basis of needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Specify the starting time for training in each of the classifications. The STA gives credit for each trainee employed on the contract work who is currently enrolled or becomes enrolled in an approved program. Reimbursement is made for the trainees as provided below.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. Demonstrate the steps taken to achieve compliance with

this Training Special Provision. This training commitment is not intended nor used to discriminate against any applicant for training, whether a member of a minority group or not.

Do not employ a trainee in any classification in which they have successfully completed a training course leading to journeyman status or in which they have been employed as a journeyman. Include appropriate questions in the employee application or by other suitable means to satisfy this requirement. Document the findings in each case.

The training program selected, and approved by the STA and the FHWA, establishes the minimum length and type of training for each classification in that program. The STA and the FHWA approves a program if it meets the equal employment opportunity obligations and qualification of the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and training are considered acceptable if administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program is obtained from the State prior to commencing work on the classification covered by the program. Provide training in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification if approved by the division office. Some off-site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, reimbursement is made of 80 cents per hour for training given an employee, on this contract, in accordance with an approved training program. This reimbursement is made even though additional training program funds are received from other sources provided such other source does not specifically prohibit other reimbursements. Reimbursement for off-site training indicated above may only be made where the trainees are concurrently employed on a Federal-aid project and one or more of the following is done: contributes to the cost of the training, provides the instruction to the trainee, or pays the trainee's wages during the off-site training period.

No payment of the 80 cents per hour is made if either the failure to provide the required training or the failure to hire the trainee as a journeyman occurs and evidences a lack of good faith effort in meeting the requirements of this Training Special Provision. A trainee begins training on the project as soon as feasible after start of work. The trainee remains on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. Responsibilities under this Training Special

Provision are fulfilled if acceptable training to the number of trainees specified is provided.

Trainees are paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

Furnish the trainee a copy of the program to be followed in providing the training. Provide each trainee with a certification showing the type and length of training satisfactorily completed.

Provide for the maintenance of records and furnish periodic reports documenting their performance under this Training Special Provision. UDOT form C-138, Monthly Training Report satisfies this reporting requirement.

FHWA-1273 Electronic version -- March 10, 1994

XV. Required Contract Provisions

FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. **Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. **General:**

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual

relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. **Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. **Payment of Fringe Benefits:**

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. **Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality

other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. **Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. **Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. **Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the

standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. **Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. **Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. **Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

> *"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans,*

maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;
Shall be fined not more that $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. **Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. **Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XVI. Wage Rates Applicable/Wage Rates Non-Applicable

General Decision Number: **UT030026** 03/05/2004 UT26

Superseded General Decision Number: UT020026

State: **Utah**

Construction Types: **Highway**

Counties: **Box Elder, Cache and Rich Counties in Utah.**

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	**Publication Date**
0	**06/13/2003**
1	**01/23/2004**
2	**03/05/2004**

IRON0027-011 07/01/2003

	Rates	Fringes
Ironworkers; Structural, Reinforcing and Ornamental	$ 21.76	9.67

SUUT1992-005 03/24/1992

	Rates	Fringes
Carpenter	$ 16.13	2.80
Cement Mason	$ 14.40	2.41
Flagger	$ 7.05	1.75
Ironworkers:		
Fence Erection (Unloading with Power Equipment; Aligning of Post; Installation of Wire Fabric, Lateral Struts, Bracing, Gates, and Hardware	$ 16.65	3.65
Laborers:		
Asphalt Raker	$ 12.40	2.72
Concrete Laborer (Compaction, underground fine grading, operation of shute or bucket)	$ 12.95	2.36
Fence Erection Laborer (Clearing of right of way, unloading of materials by hand, digging of post holes		

and pouring of concrete in connection therewithin)	$ 12.47	2.84
General Laborer	$ 11.30	2.73
Pipelayers (Smooth sides and bottom of trenches, does rigging of pipe, assembles and installs concrete and tile pipe)	$ 12.52	2.79
Power Tool Cutting Torch, Operators of gasoline, electric, or pneumatic tools, (E.G. Compressor, compactor, jackhammer, vibrator, concrete saw, chain saw and concrete cutting torch	$ 12.52	2.79
Painter, Spray	$ 14.05	1.62
Piledriverman	$ 23.54	2.80
Power equipment operators:		
Backhoe, Tire & Track, over 5 cu. yds	$ 18.14	7.03
Backhoe, Tire & Track, under 5 cu. yds	$ 17.82	7.15
Backhoe/Loader Combo	$ 18.55	6.67
Blade, Smooth/Finish	$ 18.28	6.84
Bulldozer, D7 or less	$ 17.59	7.08
Heavy Duty Repairman	$ 18.05	7.11
Loader, over 10 cu. yds	$ 18.95	6.94
Loader, under 2 1/2 cu. yds	$ 17.15	7.08
Piledriver	$ 21.85	7.23
Roller, Asphalt	$ 17.15	7.23
Roller, Grade/Compaction	$ 15.48	5.82
Sheepfoot Compactor	$ 16.29	7.08
Truck drivers: (Dump Trucks - Water Level capacity (Bottom, end and side), including Dumpster Truck, Turnawagons, Turnarockers and dumpcrete):)		
8 cu. yds. and less than 14 cu. yds	$ 15.99	4.91
Less than 8 cu. yds	$ 15.84	5.87
Mixer Truck	$ 8.63	

*** TEAM0222-001 07/01/2003**

	Rates	Fringes
Truck Driver, Dump		
Dump Trucks - Water Level Capacity (Bottom, End and Side), Including Dumpster Truck, Turnawagons, Turnarockers and Dumpcrete: 14 cu yds. and less than 35 cu. yds.	$ 16.49	7.52

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* TEAM0222-008 07/01/2003

	Rates	Fringes
Truck drivers: (Water, Fuel & Oil Tank)		
0 to less than 1,200 gal.	$ 16.065	7.52
1,200 gal. to less than 2,500 gal.	$ 16.19	7.52
10,000 gal. to less than 15,000	$ 17.14	7.52
15,000 gal. to less than 20,000 gal.	$ 17.39	7.52
2.500 gal. to less than 4,000	$ 16.34	7.52
20,000 gal. to less than 25,000 gal.	$ 17.74	7.52
4,000 gal. to less than 6,000 gal.	$ 16.64	7.52
6,000 gal. to less than 10,000 gal.	$ 16.89	7.52
Over 25,000 gal.	$ 17.89	7.52

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

XVII. Special Provisions and Supplemental Specifications

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 00555M

PROSECUTION AND PROGRESS

Add the following subparagraphs to paragraph A of 1.9 LIMITATION OF OPERATIONS:

1. Avoid lane closures whenever possible. The Engineer must approve any lane closure that is required.
2. Do not allow traffic delays to exceed 15 minutes.
3. Open all lanes to traffic when no work is being done.
4. Traffic control must include a minimum of 4 variable message boards to warn motorists of construction activity. The cost of the variable message boards will be included in the traffic control item. The Contractor will relocate message boards during the course of the project as directed by the Engineer at no additional cost.
3. Provide message boards 7 days prior to start of construction and during construction of major work items. Contact the Region Traffic Engineer for the wording on the signs.

Replace paragraph B of 1.9 LIMITATIONS OF OPERATIONS with the following:

B. Do not perform any work without written approval except repair or servicing of equipment, protection of work, maintenance or curing of concrete, or maintenance of traffic on holidays.

1. Schedule major work during off peak traffic periods. No road closure will be allowed.
2. Peak traffic periods defined as 4:00 P.M. to 6:00 P.M. Westbound Monday through Friday. This definition of peak hours may be modified if work during the defined peak hour times will not cause traffic delays longer than 15 minutes. All adjustments to the peak hours are to be approved in writing by the Engineer.

Replace paragraph A of 1.12 CONTRACT TIME with the following:

A. Immediately upon the issuance of the notice to proceed, Contract Time will be suspended until April 15th, 2006.

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 00725M

SCOPE OF WORK

Add the following to 1.3 INTENT OF CONTRACT:

B. This project will include the following items of work:

1. Remove existing guardrail and replace with W-Beam Guardrail or W-Beam Guardrail with Redwood Plank as required.
2. Construct Concrete Pipe Inlet Structures and clear outlets of debris.
3. Clean Catch Basins.
4. Construct Concrete Curb.
5. Remove existing pipe and place new 12" corrugated steel pipe culvert.
6. Construct Catch Basins. (Contingent Item).
7. Pothole Patching and construct Asphalt Berms.
7. Clean existing asphalt ditch and place Asphalt Slurry Seal Coat.
8. Landscaping – Place Untreated Base Course (shoulder dressing), Loose RipRap, Wood Fiber Mulch and Seeding.

Add the following to article 1.18 Paragraph C:

1. The Department does not accept VE proposals related to pavement section structure, strength or performance.

Delete article 1.18 Paragraph D and replace with the following:

D. The Department rejects proposals that provide equivalent options to those already in the contract.

Delete article 1.18 Paragraphs E – I and replace with the following:

E. The Department may reject proposals that:
1. Contain revisions the Department is already considering or has approved for the Contract.
2. Do not generate sufficient savings.

3. Do not provide additional information as requested by the Department including requests for field investigation results and surveys, design computations, and field change sheet for proposed design changes.

F. If the proposal is rejected, the Contractor has no claim to additional costs or delays, including development costs, loss of anticipated profits, or increased material or labor costs.

G. The Engineer can reject all unsatisfactory work resulting from an approved proposal.
   1. Remove rejected work and reconstruct under the original contract provisions at no additional cost to Department.
   2. Reimbursement for modifications to the proposal to adjust field or other conditions is limited to the total amount of the contract bid prices.
   3. Rejection or limitation of reimbursement is not basis for any claim against the Department.

H. The Department does not consider savings generated by contingency items when it is reduced as part of a VECP, unless it can be tied to a reduction in contract time.

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 00727M

CONTROL OF WORK

Add the following to 1.8 COOPERATION WITH UTILITIES:

H. The Drainage Improvements on SR-91 include excavation to remove an existing 12" pipe culvert and replace it with a with a new 12" pipe culvert. Other work items that include excavation are constructing new guardrail, constructing concrete pipe inlets with end sections, and constructing catch basins (contingent item). The Contractor is required to contact blue stakes and verify the location and depth of existing utilities prior to any excavation near the utilities within the project limits. Utility contact information has been included below to facilitate cooperation between the contractor, utility companies and local government agencies if utility conflicts exist and relocations are necessary.

Utility Contact List		
Company	Representative	Telephone No.
AT&T	Gary Cartwright Jeff Kersey	(801) 584-8045 (801) 598-6549
Questar Gas Company	Kyle Secretan	(801) 324-3389
Qwest	Jeff Stapley	(801) 974-8505
MCI	Mike Vandenberg	(801) 364-8625 (801) 550-1027
Brigham City	Bruce Leonard	(435) 734-6615
Comcast	Sheryl Pehrson	(801) 401-3023
Perry Canal	Ray Wagstaff Boyd Hershey	(435) 723-3376 (435) 723-5532
Utah Power and Light	Dan Knighton	(801) 543-3002
UDOT R1 Signals	Dale Lake	(801) 620-1606
Eagle Mountain Golf Course	Doug Balmer	(435) 230-0718

I. Access to the Eagle Mountain Golf Course to be coordinated with Doug Balmer, at the number provided above. The Contractor will be responsible to repair any damage to the golf course property caused by the Contractor during construction of this project.

J. In accordance with the provisions of Section 01721, survey, stake control lines, crossings and potential points of conflict for the utility companies.

K. Contact all other utilities not participating in Blue Stakes.

L. Notify the utility owner at least one week prior to beginning construction near their facilities.

M. If potential conflicts are found, notify the Engineer immediately and proceed as directed by the Engineer. Contractor will be responsible for any damage to utilities caused by construction activities.

N. Comply with Utah Occupational Safety and Health regulations when excavating and trenching. Refer to Section 00820, articles, “General Legal Compliance”, and “Sanitary, Health and Safety; and Explosives.”

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 00820M

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Delete Article 1.16 and replace with the following:

1.16 INSURANCE REQUIREMENTS

A. Workers' Compensation Insurance
   1. Provide Workers' Compensation Insurance to cover full liability. As a minimum, comply with the statutory limits defined by the State of Utah.

B. General Liability Insurance
   1. Provide General Liability insurance with the following minimum limits of liability:
      a. $1,000,000 Bodily Injury and Property Damage – Each Accident
      b. $2,000,000 General Aggregate
      c. $2,000,000 Products and Complete Operations Annual Aggregate

C. Excess General Liability Insurance
   1. Provide Excess Liability Insurance with the following minimum limits:
      a. $1,000,000 Each Claim

D. Automobile Liability Insurance
   1. Provide Automobile Liability Insurance for claims arising from the ownership, maintenance, or use of motor vehicles involved in project work with the following minimum limits:
      a. $1,000,000 Combined single Limit Bodily Injury and Property Damage per Occurrence

E. Provide the following for all required liability insurance policies:
   1. Where and when applicable, name as insured, only in respect to work to be performed under this Contract, the State of Utah and all institutions, agencies, departments, authorities, and instrumentalities, and while acting within the scope of their duties, all volunteers as well as members of governing bodies, boards, commissions, and advisory committees.
   2. Coverage for the above insured is primary and not contributing.

3. Incorporate into the insurance policy this statement: “Insurance coverage is extended to include claims reported up to one year beyond the date of substantial completion of this Contract.”

F. Provide UDOT with certificates of insurance showing coverage as required above at the time the contract is executed and maintain the policy in force during the entire period of the Contract. The certificates will also state that the policies required are endorsed to give UDOT (the Engineer) not less than 30 days prior notice in the event of cancellation or change in coverage.

G. Regardless of the Contractor insurance requirements required in this section, insolvency, bankruptcy, or failure of any insurance company to pay all claims accrued does not relieve Contractor of any obligations.

H. Endorse all policies to include waivers of subrogation in favor of UDOT.

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 01280M

MEASUREMENT

Delete Article 1.3 and replace with the following:

1.3 GENERAL MEASUREMENT OF QUANTITIES

A. All work completed under the Contract is measured in U. S. Standard measure.

B. The methods of measurement and computations for determining quantities of material furnished and of work performed under the Contract are methods generally recognized as conforming to good engineering practice.

C. The Department measures and determines quantities of material furnished and work performed.

D. When the plan quantities for a specific portion of the work are designated to be the pay quantities for the Contract:
   1. They are the final quantities for which payment for such specific portion of the work will be made, unless the Engineer revises the plan dimensions.
   2. If revised dimensions result in an increase or decrease in the quantities of work, Department will revise the final quantities for payment in the amount represented by the authorized changes in the dimensions.

E. When requesting additional compensation on the basis of adjustment to quantities in the bid proposal for items paid as "plan quantity," provide all computations, plots, and supporting documentation necessary for the Engineer to evaluate and verify adjusted quantities.
   1. All work associated with providing computations, plots, and supporting documentation is at no cost to the Department, except:
      a. When the Engineer revises plan dimensions. Refer to Section 01280.
      b. When the adjusted quantity differs from the plan quantity by more than 10 percent, work required to provide computations, plots, and supporting documentation will be paid for as extra work.

F. Measurements for area computations:
   1. Longitudinal measurements: made horizontally.

2. Transverse measurements: the neat dimensions shown on the plans.

G. Computing volumes of excavation: Average end area method, or computer generated Digital Terrain Model (DTM) method, unless the Engineer and Contractor agree in writing to an alternate method.

H. Measure complete structure or structural unit, signal or lighting system, ("lump sum" work) unit to include all necessary fittings and accessories.

I. Structures: Neat lines shown on the plans or as altered to fit field conditions.

J. Standard manufactured items (fence, wire, plates, rolled shapes, pipe conduit, etc.), are identified by gauge, unit, weight, section dimensions, etc.
   1. Identification will be nominal weights or dimensions.
   2. Use industry-manufacturing tolerances, unless more stringently controlled by specifications.

K. Items measured by the foot, (pipe culverts, guardrail, underdrains, etc.): measure parallel with the base or foundations upon which structures are placed.

L. The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing: measured in fractions of inches.

M. Materials specified to be measured by the cubic yard may be weighed and converted to cubic yard for payment purposes, when requested by the Contractor and approved by the Engineer in writing. Engineer determines and Contractor agrees to the factors for conversion from weight measurement to volume before this method of measurement of pay quantities is used.

N. Rental of equipment: measure hours of actual working time and necessary traveling time of the equipment within the limits of the project.
   1. If the Engineer orders special equipment in connection with force account work, the Department measures travel time and transportation to the project.
   2. If the Engineer orders equipment held on the project on a standby basis, the Department pays the agreed rental rate minus the operating cost.

Delete Article 1.10

Supplemental Specification
2005 Standard Specification Book

SECTION 01282M

PAYMENT

Add the following to Part 1, Article 1.1:

D. Section 01284: Prompt Payment

Delete Article 1.14, paragraph E and replace with the following:

E. From the total value of work, the Department deducts and retains five percent until after the entire Contract has been completed in an acceptable manner, with the following exceptions:
   a. Retention for subcontracted work paid upon satisfactory completion and acceptance by the Department. Refer to Section 01284.
   b. When no less than 95 percent of the work has been completed, and with the consent of the Surety, the Engineer may prepare a semi-final estimate from which the Department retains 1½ percent of the original contract amount. The Department certifies the remainder for payment, less all previous payments.

Supplemental Specification
2005 Standard Specification Book

SECTION 01284

PROMPT PAYMENT

Add Section 01284:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. This section applies only to Federal-Aid Contracts.

B. Requirements applicable to Contractors, subcontractors, service providers, material suppliers, and all tier subcontractors, service providers, and suppliers.

1.2 PROGRESS PAYMENTS

A. Include in subcontract, service, or purchase agreement language agreeing to pay promptly as required by this specification.

B. Pay subcontractors for satisfactory performance of sublet work, no later than 10 working days after receipt of payment by the Department.
   1. Certify that payment has been made to all subcontractors for the work performed and paid for on the most recent Department pay estimate.
   2. Provide documentation showing Department estimate number, bid item, quantities, and dollar amounts paid to subcontractors, including payments for contract bid items that are partially sublet.

C. Pay Material Suppliers and Service Suppliers within 30 calendar days after receipt of payment for work that includes materials and or services.

D. Submit the following to the Engineer within five working days after paying subcontractor(s), service provider(s), or material supplier(s):
   1. A certified statement in the form of an affidavit on letterhead, including the signature of a legally responsible official, certifying:

a. That payment of the total dollar amount paid to each entity has been made in accordance with all requirements of the contract and special provisions, and

b. That the dollar amount paid is the total amount due for work or services performed or materials purchased through the most current pay estimate.

1.3 RETAINED MONEY

A. Include in subcontract, service, or purchase agreement language agreeing to pay retained money for subcontract, service, or purchase agreement upon satisfactory completion of the work and acceptance by the Department.

B. For purposes of this Section, a subcontractor's work is considered satisfactorily completed when all work included in the subcontract is complete, in accordance with all requirements of the contract, and documented as required by the recipient. When a recipient has partially accepted a portion of the work, that portion of work performed is considered to be satisfactorily completed.

C. Require written notification from the subcontractor when all subcontract items are complete.
   1. Notify the Engineer in writing within two working days after written notification from the subcontractor.
   2. The Engineer schedules and coordinates an inspection for acceptance of the work within three working days.
   3. Receive notification from the Department in writing when the work is considered to be satisfactorily complete and accepted. Acceptance of the work includes all requirements of the contract and agreement on pay quantities.
   4. Upon acceptance of the work, the Department releases an amount equal to the subcontractor's retainage. Submit to the Engineer a certified statement:
      a. In the form of an affidavit on letterhead, including the signature of a legally responsible official, and the signature of a legally responsible official for the subcontractor, certifying that the total amount due is the total retention.

D. Pay retained money owed to the subcontractor for satisfactory completion of the accepted work no later than 30 calendar days after receipt of payment from the Department.

E. Submit to the Engineer within five workdays after making payment a certified statement:
   1. In the form of an affidavit on letterhead, including the signature of a legally responsible official, certifying that the total amount paid is the total amount of retained money paid.

F. A determination of satisfactory completion and payment of retained money does not relieve any contractual obligation.

1.4 DELAY OF PAYMENT

A. Delay payment only for cause, with prior written notice to all parties, to include the Department.

B. Provide subcontractor 10 working days from date of written notification to correct deficiencies.
   1. Release payment upon receipt of documentation demonstrating correction of deficiencies within 10 working days.

C. Engineer may withhold dollar amount of delayed payment from future estimates.

D. Include in subcontract, service, and purchase agreements, language providing for the use of appropriate alternative dispute resolution mechanisms to resolve time of payment disputes.

E. Department may hold disputed funds in escrow until the dispute is resolved.

1.5 LIQUIDATED DAMAGES

A. Upon determination by the Department of failure to make prompt payment the Engineer will provide written notification to the Contractor. Resolve the failure and make prompt payment within three working days.

B. Failure to resolve prompt payment results in the assessment of $250 per each working day, per violation, commencing from the date of the written notification until proof of payment is received.

C. Proof of payment is defined as providing confirmation from the subcontractor that payment has been received.

D. Department considers the failure to make prompt payment an indication of a lack of financial fitness. The following additional measures may be imposed as necessary:
   1. Forfeit the privilege of bidding on Department projects until payment covered by this Section is made.
   2. Forfeit the privilege of having a subcontract, supply or purchase agreement approved to perform work or supply materials on Department projects until payment covered by this Section is made.

E. Department employs other mechanisms, consistent with this Section and applicable state and local law, so payment is fully and promptly made.

1.6 CONTRACTOR INCENTIVE ENTITLEMENT

A. Two hundred fifty dollars will be paid to Prime Contractor for each subcontractor provided the following criteria is met:
   1. Worked on the project.
   2. All prompt payment statements submitted to the project office within five working days after payment to subcontractors.
   3. Department received no valid complaints regarding prompt payment.
   4. Payment within 30 days after project has reached physical completion.

PART 2 PRODUCTS **Not used**

PART 3 EXECUTION **Not used**

END SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 01315M

PUBLIC INFORMATION SERVICES

Add the following to 1.4 PUBLIC INFORMATION MANAGER (PIM) RESPONSIBLITIES:

H. Furnish a copy of the public information flyer to Bill Gooch, Project Manager, fax number: (801) 620-1676 or e-mail address billgooch@utah.gov, Andy Neff, Region One Public Information Officer, fax number: (801) 620-1665 or e-mail address aneff@utah.gov and David Holmgren, Project Engineer, fax number (801) 620-1676 or e-mail address dholmgren@utah.gov , prior to proceeding with work.

Add the following to 3.1 ESTABLISH LOCAL PUBLIC INFORMATION SERVICES:

L. Erect signs with the CONTRACTOR's public information office phone number according to Standard Drawings TC-1B and TC-3.

END OF SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 01571S

TEMPORARY ENVIRONMENTAL CONTROLS

Delete Section 01571 and Section 01574 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements for controlling erosion on the construction site and diminish the amount of sediment leaving the site, and related areas under the Contractor's control.

B. Requirements for installing, maintaining, and removing temporary erosion control measures.

1.2 RELATED SECTIONS

A. Section 02373: Riprap

B. Section 02610: Pipe Culverts

C. Section 02613: Culvert End Sections

D. Section 02922: Seed, Turf Seed, and Turf Sod

1.3 REFERENCES

A. AASHTO M 288: Geotextile Specifications for Highway Applications.

B. Storm Water Pollution Prevention Plan (SWPPP)

1.4 TYPES

Refer to EN series Standard Drawings for all types.

A. Check Dam:
   1. A temporary fiber roll or stone structure that is placed across a ditch to intercept and pond sediment-laden runoff, thereby reducing the water velocity and allowing suspended sediment to settle. Constructed so water will flow over a low point in the middle of the dam and not around the sides.

B. Silt Fence:
   1. A geotextile fabric fence installed to intercept and pond sediment-laden sheet flow runoff allowing suspended sediment to settle.

C. Slope Drain:
   1. A polyethylene pipe placed on a slope that collects and transports storm runoff down the face of a slope and is used until permanent drainage facilities are installed or vegetation growth is adequate.

D. Temporary Berm:
   1. A ridge of compacted soil, with or without a shallow ditch that diverts storm runoff from a recently constructed slope to a controlled release point.

E. Drop-inlet Barrier:
   1. A fiber roll, silt fence, or stone barrier placed around a drop-inlet that intercepts and ponds sediment-laden runoff allowing suspended sediment to settle. If the pond height reaches the top of the barrier, water flows over the barrier and into the drop-inlet.

F. Pipe Inlet Barrier:
   1. Consists of a horseshoe-shaped barrier protecting a pipe inlet that intercepts and ponds sediment-laden runoff before it enters a pipe allowing suspended sediment to settle.

G. Curb Inlet Barrier:
   1. A protective barrier placed across a curb inlet that intercepts and ponds sediment-laden runoff before it enters a curb inlet.

H. Sediment Trap:
   1. An excavated basin, usually installed at low points on a construction site, that intercepts and ponds sediment-laden concentrated flows allowing suspended sediment to settle.

I. Stabilized Construction Entrance:
   1. A layer of rock placed at a construction site entrance that removes mud from vehicle tires before they leave the construction site and drive onto a paved road.

J. Straw Bale Barrier:
   1. Consists of straw bales butted end to end and used in active construction areas where a silt fence would fail. Installed to intercept and pond sediment-laden sheet flow runoff allowing suspended sediment to settle.

PART 2 PRODUCTS

2.1 MATERIALS

A. Check dams:
   1. Fiber Roll:
      a. Fiber Roll: Contact Engineer for Approved Products List of Fiber Roll Products. Approved list is updated annually.
      b. Wood stakes: commercial quality lumber 2-inch square (nominal) by 3 feet.
      c. Channel Liner: Contact Engineer for Approved Products List of Channel Liners. Approved list is updated annually.
   2. Stone: Well-graded within 2 to 6 inches in diameter.

B. Silt Fence:
   1. Silt Fence Fabric: See AASHTO M 288 (Table 6 – Temporary Silt Fence Property Requirements).
   2. Wood Post: commercial quality lumber, 2-inch square (nominal) by 4 feet in length.
   3. Fasteners: Staples, wire, zip ties, or nails sufficient to maintain the fabric's attachment to post.

C. Slope Drain:
   1. Pipe Culverts: Refer to Section 02610.
   2. End Section: Refer to Section 02613.
   3. 9-inch Loose Riprap: Refer to Section 02373.
   4. Wooden stakes: commercial quality lumber 2-inch square (nominal) by 3 feet.

D. Temporary Berm:
   1. Existing Soil.

E. Drop-Inlet Barriers:
   1. Fiber Roll: Refer to this Section.
   2. Stone: Well-graded within 2 to 6 inches diameter.
   3. Silt-Fence: Refer to this Section.
      a. Wood stud: 2 inches x 4 inches (nominal).

F. Pipe-Inlet Barrier:
   1. Stone: Well-graded within 2 to 6 inches in diameter.

G. Curb Inlet Barrier:
   1. Concrete Building Blocks.
   2. Stone: Well-graded within 2 to 6 inches diameter
   3. Wire Mesh: 0.5 inch by 0.5 inch openings.
   4. Wood stud: 2 inches x 4 inches (nominal).

H. Sediment Trap:
   1. 9-inch Loose Riprap: Refer to Section 02373.

I. Stabilized Construction Entrance:
   1. Stone: Well-graded within 2 to 3 inches in diameter.

J. Straw Bale Barrier:
   1. Standard Straw Bales: Obtained from weed free fields that have been certified by the Utah Department of Agriculture.

PART 3 EXECUTION

3.1 PREPARATION

A. Prepare and submit a Notice of Intent (NOI) for Storm Water Discharges with Construction Activity. NOI forms can be completed online at Division of Water Quality website. Refer to http://www.udot.utah.gov/index.php/m=c/tid=719.

B. Do not start earth-disturbing work until the completed NOI form has been submitted to the Division of Water Quality at the DEQ.

C. Follow the Storm Water Pollution Prevention Plan (SWPPP) in the plan set.
   1. Address in the SWPPP all disturbed areas on a project including staging areas, haul roads, borrow sites, stockpiles, and disposal areas.
   2. If SWPPP is not provided in the plans, create and submit a plan to the Engineer for approval.
   3. Obtain written approval from the Engineer to change the SWPPP.

D. Designate an SWPPP coordinator who will:
   1. Work directly with the Department SWPPP coordinator designated by the Engineer.
   2. Be available as needed to coordinate the SWPPP, inspect and maintain sediment control devices, and resolve other issues.

E. Do not start earth-disturbing work until project perimeter temporary erosion measures and those protecting environmentally sensitive areas are in place and approved.

F. Use the most restrictive requirement if a conflict occurs between erosion and sediment control specifications and federal, state, or local agency's laws, rules, or regulations.

G. At the end of construction, submit a Notice of Termination (NOT) form to the Division of Water Quality to terminate the permit. NOT forms can be obtained from the website listed under A in this subsection.

3.2 INSTALLATION

A. The erosion control measures on the SWPPP are diagrammatic and must be adapted in the field to meet their intended purpose. As the project progresses through the various construction phases, implement the appropriate erosion control measures for that stage. Make necessary changes to the SWPPP to accommodate construction sequencing.

B. Obtain approval from the Engineer to make changes to the SWPPP. Install additional erosion control measures as directed by the Engineer.

C. Follow installation procedures outlined in the EN Series Standard Drawings.

D. Provide or construct measures such as check dams, silt fence, slope drains, drop-in inlet barriers, sediment traps, and other erosion control devices or methods to reduce erosion and sedimentation during construction and/or shutdown periods.

E. Temporary or permanent stabilization measures (Refer to Section 02911 and Section 02376) must be in place as soon practicable but in no case longer than 14 days unless construction activity will resume on that portion of the site within 21 days from when activity ceased. If snow cover precludes the mulch placement, it shall be applied as soon as practicable. Seasonal shut downs require that at a minimum mulch be placed for all disturbed portions of the project.

3.3 INSPECTIONS

A. Inspect all denuded areas during construction to determine potential erosion problems. Pro-actively apply corrective measures.

B. Inspect all temporary erosion control measures a minimum of once every seven calendar days and within 24 hours after any storm event greater than ½ inch. Where construction sites have been temporarily or seasonally shut down, conduct inspections once a month.

C. After each inspection, complete an inspection report and submit it to the Engineer. Include the following information: inspection type, name(s) of qualified personnel conducting the inspection, inspection date, corrective measures needed.

3.4 MAINTENANCE

A. Maintain temporary sediment control devices to ensure they function properly until all disturbed areas draining to them are stabilized.

B. Remove and properly dispose of sediment when it has accumulated half way up the overall structure height or it interferes with the performance of the structure.

C. Dispose of sediment removed from erosion control structures in a manner acceptable to the Engineer.

3.5 REMOVAL

A. All costs associated with Removal are incidental to other items of work and no separate measurement or payment will be made.

B. After all seeding and mulching has been placed and just before final closeout of the project, remove any remaining sediment from behind and around erosion control features and remove all temporary erosion control features unless directed differently by the Engineer.

C. Seed areas where the sediment was removed following Section 02922.

END OF SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 01721M

SURVEY

Delete Article 1.1, Paragraph A., and replace with the following:

A. Schedule, coordinate, and provide all construction surveying, staking, measurement, and calculations essential to complete the project and properly control the entire work.

Delete Article 1.5, Paragraph F and G and replace with the following:

F. After project completion, return to the Engineer all surveying and design data and provide a red-lined hard copy plan set showing as-constructed features denoting changes from the original design.

Delete Article 3.3, Paragraph C.

Delete Article 3.11, and replace with the following:

3.11 GUARDRAIL AND CRASH CUSHION

A. Stake guardrail vertical and horizontal control at a maximum spacing of 25 ft on tangent sections and 10 ft on curved sections unless otherwise approved.

B. Obtain Engineer's approval and field verification of staking prior to installation.

Supplemental Specification
2005 Standard Specification Book

SECTION 01721M

SURVEY

Delete Article 1.2, and replace with the following:

1.2 RELATED SECTIONS

A. Section 01280: Measurement

B. Section 02765: Pavement Marking Paint

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 02610S

PIPE, PIPE-ARCH, STRUCTURAL PLATE PIPE, AND STRUCTURAL PIPE ARCH

Delete Section 02610 in its entirety and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Materials and procedures for installing pipe.

B. Class, type, size, and thickness designations.

C. Asphalt coating for pipe.

1.2 RELATED SECTIONS

A. Section 00820: Legal Relations and Responsibility to Public

B. Section 02317: Structural Excavation

C. Section 02330: Embankment

D. Section 03055: Portland Cement Concrete

E. Section 03310: Structural Concrete

1.3 REFERENCES

A. AASHTO M 36: Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains

B. AASHTO M 55: Steel Welded Wire Fabric, Plain, for Concrete Reinforcement

C. AASHTO M 86: Concrete Sewer, Storm Drain, and Culvert Pipe

D. AASHTO M 167: Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches

E. AASHTO M 170: Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

F. AASHTO M 190: Bituminous Coated Corrugated Metal Culvert Pipe and Pipe Arches

G. AASHTO M 196: Corrugated Aluminum Pipe for Sewers and Drains

H. AASHTO M 197: Aluminum Alloy Sheet for Corrugated Aluminum Pipe

I. AASHTO M 198: Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants

J. AASHTO M 207: Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe

K. AASHTO M 219: Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches

L. AASHTO M 243: Field Applied Coating of Corrugated Metal Structural Plate for Pipe, Pipe Arches, and Arches

M. AASHTO M 245: Corrugated Steel Pipe, Polymer Precoated, for Sewers and Drains

N. AASHTO M 246: Steel Sheet, Metallic-Coated and Polymer Precoated for Corrugated Steel Pipe

O. AASHTO M 274: Steel Sheet, Aluminum-Coated (Type 2), for Corrugated Steel Pipe

P. AASHTO M 294: Corrugated Polyethylene Pipe, 300- to 1500-mm Diameter

Q. AASHTO M 304: Polyvinyl Chloride (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter

R. AASHTO Standard Specifications for Highway Bridges

S. ASTM A 849: Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe

T. ASTM C 828: Standard Test Method for Low Pressure Air Test of Vitrified Clay Pipe Lines

U. ASTM C 924: Standard Practice for Testing Concrete Pipe Sewer Lines by Low-Pressure Air Test Method

V. ASTM C 969: Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Sewer Lines

W. ASTM C 1103: Standard Practice for Joint Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines

X. ASTM D 1784: Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds

Y. ASTM D 3212: Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals

Z. ASTM D 3350: Standard Specification for Polyethylene Plastics Pipe and Fittings Materials

AA. ASTM F 477: Elastomeric Seals (Gaskets) for Joining Plastic Pipe

BB. ASTM F 1417: Standard Test Method for Testing Installation Acceptance of Plastic Gravity Flow Sewer Lines Using Low Pressure Air

CC. Utah Occupation Safety and Health Regulations

1.4 DEFINITIONS

A. Pipe and Pipe Arch are identified according to diameter or by span and rise, the following definitions, and according to corrosion class as shown in this Section and in Section 2.1:

1. Cross Culvert – A transverse drain, covered with embankment, which allows surface runoff to pass under the embankment.
2. Storm Drain – A closed conduit or waterway that collects and conveys storm runoff, which has drainage structures at the ends of individual pipe runs such as catch basins, drop inlets, man-holes, endwalls and other similar features by gravity flow.
3. Irrigation Pipe – A pipe designed to carry seasonal irrigation water by gravity flow.
4. Damage to pipe - Pipe damage is considered any defect that compromises the longevity or functionality of the installation.

B. Corrosion Classification:
   1. Class A: Pipe used in mostly non-reactive soils, which require no special materials, treatments, or coatings.
   2. Class B: Pipe used in moderately reactive and corrosive soils.
   3. Class C: Pipe used in soils which are highly reactive and corrosive.
   4. Class D: Untreated structural plate pipe used in mostly non-reactive and non-corrosive soils.
   5. Class E: Structural plate pipe used in highly reactive and corrosive soils.

C. Other useful definitions:
   1. Cover – The vertical extent of soil above the crown of the pipe or culvert (see DG series of the standard drawings).
   2. End Section – A structure commonly made of steel or concrete, that is attached to one or both ends of a culvert or a pipe to retain the embankment, improve appearance, provide anchorage, improve discharge and limit scour at the opening.
   3. Headwall – A structure, commonly made of concrete, placed at the end of culvert inlet or outlet or storm drain outlet, to anchor the pipe, to retain the highway embankment near the pipe end and to protect the pipe ends from bank erosion and channel bed scour.
   4. Invert – The floor, bottom, or lowest part of the internal cross section of a culvert, conduit or storm drain.
   5. Paved Invert – Lining of concrete, bituminous or other materials, placed in the invert to protect the invert from abrasion and/or to improve the culvert hydraulics.
   6. Rise – The vertical height dimension of a box, pipe arch, and arch structure.
   7. Skew – The angle between a line perpendicular to the roadway centerline and the longitudinal direction of the culvert barrel.
   8. Soffit – The inside top or roof of a culvert, conduit or storm-drain pipe.
   9. Span – The horizontal dimension of a box culvert, pipe arch, or arch structure.

1.5 SUBMITTALS

A. Provide a manufacturer's Certificate of Compliance showing that furnished pipes meet or exceed the requirements in Article 2.5 paragraph A.1 of this section.

B. Provide certification that the company manufacturing HDPE pipe is enrolled in the National Transportation Product Evaluation Program (NTPEP) and that the particular pipe size they are furnishing has been tested and meets AASHTO minimum requirements for HDPE pipe.

C. Furnish a Certification of Compliance from the manufacturer certifying coating thickness.

1.6 ACCEPTANCE CRITERIA

A. General

1. Pipes are accepted according to the criteria outlined in this section. Perform the acceptance testing, or use the services of a UDOT approved third party testing company.
2. Pipes are accepted after verification that the following elements meet the specification's requirements:
   a. Horizontal and vertical alignment deviations
   b. Barrel distortion
   c. Damage to the pipe
   d. Joints
   e. Coating integrity
3. Repair according to manufacturer recommendations as approved by the Engineer. Repair any pipes with damage that compromises the longevity or functionality of the installation. Remove and replace any pipe that can not be repaired to reasonably meet the design criteria and function.

B. Requirements

1. Horizontal and vertical alignment deviations
2. Remove and reinstall all pipes that exceed the alignment tolerances shown in Table 1.

Table 1 - Tolerances

Installation Alignment Tolerances		
Design Grade	**Horizontal Deviation**	**Vertical Deviation ***
		inches/100feet
> 1 %	Horizontal joint deflections not to exceed industry standards	1 1/2
≤ 1 %		1
< 0.5 %		± 0.5

***** For cross culverts increase tolerance by 50 percent.

3. Joints
   a. Cross Culverts - Provide pipes with joints that pass a 3-psi pressure test in the laboratory according to Article 2.5 paragraph A of this section.
   b. Storm Drains – Provide pipes with joints that pass a 5-psi pressure test or any other pressure requirements specified in the plans. Test pipes according to Article 2.5 paragraph A of this section.

c. Irrigation pipe – Provide pipes with joints that pass laboratory tests for 5 psi or any other pressure requirements specified in the plans.
d. Pipe arches and structural plate pipes are installed per manufacturer's recommendations and are not pressure rated.

4. Allowable distortions – Provide installed pipes that do not have ovaling or distortions greater then 5 percent of the nominal pipe diameter. Measure distortions using a mandrel or directly. For nominal pipe diameter larger than 48 inches, use measured diameter to calculate the 5 percent tolerance limit.

C. Inspection and testing

1. The inspection and testing is divided into two categories:
   a. Cross Culverts
   b. Storm drains and irrigation pipes.
2. Table 2 shows the inspection and testing required according to pipe category. Inspect and/or test with the Engineer or his representative present, the cross culverts, storm drains, and irrigation pipes installation prior to placing the roadway pavement.

Table 2 - Pipe Testing Requirements According to Pipe Function.

Pipe Category and Size	Visual		Physical		Leakage
	Sight	Video Recording	Manual Measure	Mandrel See Sec. 1.6.C4	Air or Water Test
Cross Culverts ≤ 48-inch dia.		X*	X*	When visual shows non compliance with criteria in this section	
Cross Culverts > 48-inch dia.	X		X		
Storm Drains/Irrigation Pipes ≤ 48-inch dia.		X*	X*	When visual shows non compliance with criteria in this section	When visual test shows non compliance with criteria in this section
Storm Drains/Irrigation Pipe > 48-inch dia.	X		X		When visual test shows non compliance with criteria in this section

* Both methods are acceptable for pipes with diameters larger than 30-inches

3. Inspect 25 percent of all the cross culvert, storm drain installations, and irrigation pipe units, selected by the Engineer. Round to the highest whole unit. Test any pipes with apparent defects as directed by the engineer. The Department will pay the cost of any requested additional tests that show the pipe tested being in compliance with the criteria in this section.
4. Sample Unit
    a. The unit for pipes used for cross-culverts is the entire length of the cross culvert
    b. The unit for pipes used for closed conduits, such as storm-drains and irrigation pipes is the entire length of pipe between manholes or other junction structures.
5. Visual Inspection
    a. Visually inspect pipes as required in Table 2, with an Engineer's representative. Follow OSHA requirements for inspecting confined entry spaces.
    b. Provide and use a mobile color video camera with an appropriate light to show the interior of the pipe that is able to move inside the pipe barrel and be controlled remotely by the inspector, to inspect installed pipes as required in Table 2.
    c. Provide a remote monitor and a recording apparatus for the camera, to view and record the condition of the installed pipes.
    d. Provide a digital copy of the pipe inspection video recording to the Engineer.
6. Mandrel Test

    When visual inspection documents pipe deformation of concern, the Engineer can require a mandrel test according to the following criteria.
    a. Test pipe by hand pulling a fabricated mandrel through the sample unit.
    b. Provide and use mandrels to verify that the installed pipes meet the specification requirements in Table 2 of this specification.
    c. Provide the following:
        1) A mandrel, acceptable to the Engineer.
        2) A mandrel with an effective diameter equal to 95 percent of the nominal inside diameter.
        3) A proving-ring to verify mandrel size.
        4) A mandrel with a minimum of nine equally spaced runners (40 degree angles).
7. Manual Measurement
    a. Measure manually any distortions (deflections) of pipes as indicated in Table 2 and verify in the presence of the Engineer or his representative that the installed pipes sample meet the criteria in Table 2.

8. Joint Test (for Strom Drains and Irrigation Pipes only)
In addition to the inspection requirements in Article 1.6 paragraph C of this section, test units with diameters equal to or less than 42 inches when visual inspection indicates noncompliance with the criteria in this section. Test all pipes that have joints showing visible gaps, defects, or any other problem according to one the following testing methods:

a. Air Test
Test individual joints according to ASTM C 1103.
Concrete Pipe – Test according ASTM C 924.
Plastic Pipe – Test according to ASTM C 828 or C 924 or F 1417 and manufacturer's recommendations.

b. Exfiltration Test
Test all pipe material types according to AASHTO M 86 and ASTM C 969. Maintain head for one hour. Do not exceed leakage values in Table 3. Locate source or sources of leakage and repair damaged storm drain or irrigation system that does not pass the test.

Table 3 - Leakage Test Allowances

Nominal Pipe Diameter (Inches)	Maximum Leakage Allowed (Gal/hr/100 feet)
18	4.5
24	6
30	7.5
36	9
42	10.5
48	12

D. Quality Assurance

1. Repair or replace damaged or improperly installed pipes in a sample unit at the direction of the Engineer.
2. Repair according to manufacturer's recommendations pipes that fail the Joint Test in Article 1.6 paragraph C at no cost to the Department. Retest the repaired pipes. Remove and replace pipes if they fail retest.
3. Provide engineering analysis certifying the structural and hydraulic integrity of the pipe, stamped by a professional engineer registered in Utah, for all pipes that fail the mandrel test and that do not exceed 10-percent deflections, to the Resident Engineer and Central Hydraulics for the pipe acceptance.
4. Apply the pay reduction schedule in Table 4, for sample units left in place that have pipes that do not meet mandrel test requirements, if an engineering analysis is not performed:

Table 4 - Payment Reductions

PIPE DEFLECTION MEASURED	
Amount of Deflection (%)	Payment
0.0 to 5	100% of the Unit Bid Price
5.1 to 9.9	75% of the Unit Bid Price
10 or greater	Remove and Replace

5. Remove and replace all pipes that exceed 10-percent deflections.

PART 2 PRODUCTS

2.1 PIPE CORROSION CLASSIFICATION

A. Pipe Corrosion Classes:
   1. Class A: Pipe used in mostly non-reactive soils that require no special materials, treatment, or coating.
   2. Class B: Pipe used in moderately reactive and corrosive soils.
   3. Class C: Pipe used in soils which are highly reactive and corrosive.
   4. Class D: Untreated structural plate pipe used in mostly non-reactive and non-corrosive soils.
   5. Class E: Structural plate pipe used in highly reactive and corrosive soils.

B. Pipe Class Substitutions: May be made at no additional cost to the Department.
   1. Class B and C may be substituted for Class A.
   2. Class C may be substituted for Class B or A.
   3. Class E may be substituted for Class D.

C. Refer to Table 5.

Table 5 - AASHTO Reference Specifications for Pipe

Pipe Type		Pipe Class				
		A	B	C	D	E
Substitutions: Class B and C may be substituted for Class A, Class C may be substituted for Class B or A, Class E may be substituted for Class D.						
1.0	**Corrugated Pipe and Pipe Arch:**					
1.1 1.1(a)	Corrugated steel pipe. Corrugated steel pipe arch. **(1)**	M 36	M 36 Asphalt Coating (Type A) M 190 OR Polymeric Coating 0 µm (inside) / 250 µm (outside) M 245 & M 246 ASTM A 849 or Aluminized Type II Steel M 274 (2)	M 36 Asphalt Coating (Type A) M 190 OR Polymeric Coating 250 µm (inside)/250 m (outside) M 245 & M 246 ASTM A 849	N/A	N/A
1.2 1.2 (a)	Corrugated aluminum pipe. Corrugated aluminum pipe arch. **(1)**	M 196 M 197	M 196 M 197	M 196 M 197	N/A	N/A
1.3	Corrugated polyethylene (HDPE) pipe	M 294 ASTM D 3350	M 294 ASTM D 3350	M 294 ASTM D 3350	N/A	N/A
2.0	**Smooth-Lined Pipe and Pipe Arch:**					
2.1	Concrete lined corrugated steel pipe (Use Type V cement. Refer to Section 03055)	M 36	M 36 Asphalt Coating (Type A) M 190 OR Polymeric Coating 250 µm (inside) /250 µm (outside) M 245 & M 246 ASTM A 849	M 36 Asphalt Coating (Type A) M 190 OR Polymeric Coating 250 µm (inside) /250 µm (outside) M 245 & M 246 ASTM A 849	N/A	N/A
2.2	Corrugated Polyethylene Pipe, 300- to 1500-mm Diameter	M 294 ASTM D3350	M 294 ASTM D3350	M 294 ASTM D3350	N/A	N/A
2.3	Smooth lined Polyvinyl chloride (PVC) pipe	M 304 Cell Class # 12454C ASTM D 1784	M 304 Cell Class # 12454C ASTM D 1784	M 304 Cell Class # 12454C ASTM D 1784	N/A	N/A
2.4 2.4 A	Asphalt smooth lined corrugated steel pipe Pipe arch	M 36	M 36 Asphalt Coating (Type D) M 190	M 36 Asphalt Coating (Type D) M 190	N/A	N/A

Pipe Type		Pipe Class				
		A	B	C	D	E
Substitutions: Class B and C may be substituted for Class A, Class C may be substituted for Class B or A, Class E may be substituted for Class D.						
2.5 2.5 a	Spiral rib steel pipe Spiral rib steel pipe arch	M 36	M 36 Asphalt Coating (Type A) M 190 OR Polymeric Coating 0µm (inside) / 250 µm (outside) M 245 and M 246, ASTM A 849 or Aluminized Type II Steel M 274 (2)	M 36 Asphalt Coating (Type A) M 190 OR Polymeric Coating 250 µm (inside)/250 µm (outside) M 245 and M 246 ASTM A 849	N/A	N/A
2.6	Spiral rib aluminum pipe and pipe arch	M 196 and M 197	M 196 and M 197	M 196 and M 197	N/A	N/A
2.7	Reinforced concrete pipe	M 170 Type II Cement	M 170 Type II Cement	M 170 Type V Cement required	N/A	N/A
2.8	Non-reinforced concrete pipe	M 86 Type II Cement	M 86 Type II Cement	M 86 Type V Cement required	N/A	N/A
2.9	Elliptical reinforced concrete pipe	M 207 Type II Cement	M 207 Type II Cement	M 207 Type V Cement required	N/A	N/A
3.0	**Structural Plate Pipe and Pipe Arch:**					
3.1	Structural steel plate pipe and pipe arch	N/A	N/A	N/A	M 167	M 167 M 243
3.2	Aluminum alloy structural plate pipe and pipe arch	N/A	N/A	N/A	M 219	M 219
Footnotes: (1) Minimum corner radii conforming to the details shown on the standard drawings. (2) Acceptable Soil Conditions, Class B, Aluminized Type II Steel are: 1.6mm minimum thickness of metal acceptable where pH is greater than 7 and less than 8.5, and soil resistivity is greater than 1500 ohm-centimeters.						

2.2 PIPE TYPES

A. Pipe, Pipe Arch, Structural Plate Pipe and Structural Plate Pipe Arch Types: Refer to Table 4.

2.3 RELATED PRODUCTS

A. Asphalt Coating: Furnish Material Class M-Mastic, either asphalt or tar base, cold applied. ASTM A 849.
   1. Asphalt base mastic design criteria:
      a. Functions as a cool-applied waterproofing membrane.
      b. Provides a protective coating to aluminum or steel highly resistant to corrosion and chemical fumes.

c. Is not affected by freezing temperatures and does not flow in hot weather.
d. Has high cohesive strength and readily hardens in to a tough elastic seal after application.
e. Is mixed until the mineral stabilizers and fillers are uniformly dispersed. Follow AASHTO M 243.

2.4 PIPE SELECTION

A. At the preconstruction conference, declare choice of pipe, type, diameter and thickness to be used.

B. Use the same type and strength of concrete pipe or thickness of steel, aluminum, polyethylene or polyvinyl chloride (PVC) pipe for the entire run of pipe.

C. Use the maximum height of cover to determine the strength or thickness. Refer to the DG series Standard Drawings.

D. Do not use aluminum pipe when a paved invert is required, unless protective measures are taken. Follow this Article 3.7 paragraph C of this section.

E. Corrugated and smooth-lined high density polyethylene pipes: Use only HDPE Plastic Pipe up to 60-inch diameter that currently meets AASHTO M 294 requirements and is certified by AASHTO National Transportation Product Evaluation Program (NTPEP). Provide a copy of NTPEP test results to the Engineer.

F. Corrugated and smooth-lined PVC pipes: Use up to 36inch diameter.

G. Furnish Material Pipe Coating Class M-Mastic, either asphalt or tar base, cold applied. ASTM A 849.

H. Precast, non-reinforced concrete pipe: Use only 18-inch to 36-inch diameter.

I. Do not allow pipes of different types of metal to contact each other. Use matching materials to make direct extensions of existing pipes.

J. Do not use pipe containing longitudinal lap seams if watertight pipe or watertight joints are called for.

K. Do not use thermoplastic pipe manufactured without UV inhibitors approved by the Materials Engineer in applications subject to direct sunlight.

2.5 JOINTS OR COUPLING BANDS FOR PIPES

A. General:
   1. Furnish pipes with joints that can sustain 3 psi minimum pressure for all cross culverts, or 5 psi minimum pressure for all storm-drains and irrigation pipes, tested according to the proper AASHTO and ASTM test requirements by and independent lab or witnessed by a UDOT representative, for each pipe type.
   2. Comply with manufacturer's recommendations for connecting pipes and for connecting pipes to concrete headwalls, catch basins, and similar structures.

B. Concrete Pipes:
   1. Meet AASHTO M 198.

C. Metal Pipe:
   1. Refer to DG series Standard Drawings.
   2. Conform to AASHTO Standard Specifications for Highway Bridges and AASHTO M 36 or AASHTO M 245 with the following modifications:
      a. Use connecting bands of the same class as the pipe. Maintain a minimum thickness of 0.064 inch for the connecting bands.
      b. Use bands with projections (dimple bands) only in extension of existing pipes where annular corrugations do not exist.
      c. The ends of helically corrugated pipe must be re-rolled to form at least two full annular corrugations each before being joined.
      d. Use flat bands only when approved in writing by the Engineer.
      e. Follow DG series Standard Drawings.

D. Joints for Polyethylene (HDPE) Pipe: Unless otherwise specified, use standard joints conforming to Section 7, Requirements, and Section 9, Test Methods of AASHTO M 294 and tested in the lab in accordance with ASTM D3212.

E. Joints for PVC Pipes: Show no leakage when tested in accordance with ASTM D 3212. Meet ASTM F 477 for gaskets.

F. Provide HDPE joints that can sustain in the lab 5 psi minimum pressure for all cross culverts and 10 psi for all drainage and irrigation pipe and sewer pipes.

PART 3 EXECUTION

3.1 PREPARATION

A. Excavating, Trenching, Bedding and Backfill:
   1. Refer to Section 02317.
   2. Refer to DG series Standard Drawings.
   3. Comply with Utah Occupation Safety and Health regulations when excavating and trenching. Note safety restrictions for trenches deeper than 4 feet. Follow Section 00820.
   4. Use Type I bedding unless Type II or Type III is required due to foundation conditions.

3.2 INSTALLATION

A. Follow manufacturer installation requirements for installing all types of pipe.

B. Follow the following installation guidelines. Consult with the Resident Engineer when conflicts arise with the following and manufacture's guidelines.
   1. Lay pipe starting at the downstream end.
   2. Keep the bottom of the pipe in contact with the bedding throughout its length.
   3. When indicated on the drawings, camber pipe upward from a chord through the inlet and outlet inverts an ordinate amount equal to one percent of the pipe length. Develop camber on a parabolic curve. If the mid-point elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe gradient.
   4. Place bell or socket end of pipe facing upstream.
   5. Place pipes fabricated with longitudinal laps or seams so that such seams are located approximately 45 degrees away from the invert or crown.
   6. Place paved invert or partially lined pipe so that the centerline of the paved segment matches the flow line.
   7. Place elliptical pipe with the major axis within five degrees of a vertical plane through the longitudinal axis of the pipe.
   8. Place outside circumferential laps of flexible corrugated (annular corrugations) pipe facing upstream.
   9. Close the joints to meet the specified joint integrity in accordance with manufacturer's recommendations.

10. Install pipe to conform to AASHTO Standard Specifications for Highway Bridges:
    a. Section 26 for Corrugated Metal Pipe
    b. Section 27 for Concrete Pipe
    c. Section 30 for Thermoplastic Pipe

3.3 SMOOTH LINING FOR CORRUGATED STEEL PIPE AND PIPE ARCH

A. Clean all surfaces to be lined including removal of all oil and grease from the metal. Allow the surface to dry before proceeding.

B. Concrete Lining: Follow ASTM A 849, Subsections 5 and 9.

C. Asphalt Lining: Follow Table 3.

3.4 PIPE AND PIPE ARCH

A. Follow AASHTO M 243.

B. Use materials described in Table 3.

C. Remove moisture, dirt, oil, un-bonded or incompatible paint, grease residual oil, alkalies, or other foreign matter from the surface to be coated.

D. Spray or brush-coat all aluminum pipes contacting concrete with an asphalt mastic or tar base material to a minimum thickness of 0.05-inch.

3.5 STRUCTURAL PLATE PIPE AND PLATE PIPE ARCH

A. Use materials described in Table 4.

B. Repair or replace all damaged plates or coatings before installation.

C. Installation: Follow DG series Standard Drawings. Embankment: Refer to Section 02330.

D. Assembly:
    1. Give the Engineer a copy of the detail plan showing the position of each plate and the assembly order.
    2. Follow the manufacturer's instructions.
    3. Clearly mark each modified plate, designating its position in the finished structure.
    4. Place outside circumferential pipe-laps facing upstream.
    5. Attain approved seam fit-up. All bolts must be in place and have a torque according to manufacturer's recommendation.

6. Form structural plates so that the finished pipe is elliptical with the vertical diameter of round pipe approximately 5 percent greater than the nominal diameter.

E. Asphalt Coating (structural plate pipe, and plate pipe arch, and arches):
   1. Thoroughly clean all plates to be coated. Remove any oil or grease from the surface of the plates. Keep plates clean and dry prior to coating.
   2. Apply coating to dry plates:
      a. Spray or brush-coat the entire exterior surface of the pipes with an approved post-applied mastic coating to a minimum 0.08 inches wet thickness. Follow AASHTO M 243.
      b. Spray or brush-coat the inside invert for 1/4 of the circumference of round pipe and the full span width of pipe arch with the same compound.
      c. Spray or brush coat all metal surfaces in contact with the ground at the time of erection before assembly. The remaining surfaces may be treated after erection.
   3. Apply uniformly to a minimum thickness of 0.06 inches dry thickness to structural plate for pipe, pipe arches, or arches on inside and outside surfaces measured on the crest of the corrugations.
   4. Furnish as follows, according to the application used:
      a. Spraying consistency: Spray with an air gun without the use of additional thinners when temperatures are 39 degrees F and above.
      b. Troweling consistency: Apply with a knife or trowel.
      c. Brushing consistency: Apply with an ordinary roofing brush.

3.6 INVERT PROTECTION

A. Paved Invert:
   1. Use corrugated steel pipe or pipe arch and structural steel plate pipe or plate pipe arch.
   2. Complete backfill and embankment over the pipe before placing paved invert material.
   3. Use 10-gage wire fabric with wire spaced at 6-inch centers. Refer to AASHTO M 55.
   4. Arc-weld the wire mesh reinforcement to the corrugation at not more than 2 ft centers.
   5. Place concrete at least 2 inches above the crest of the corrugations, at least 1/4 of the circumference of round pipe, or the span width of arch pipe. Refer to Section 03055.
   6. Finish the concrete to a floated surface finish. Follow Section 03310.
   7. After curing, coat the joint between the pipe and concrete with liquid asphalt at a rate 0.9 gal/yd^2 of residual asphalt. Coat 6 inches above and below the joints.

3.7 QUALITY CONTROL

A. Provide adequate cover or protection for all pipe during project construction. Replace all damaged pipe before acceptance by the Department.

B. The following constitute poor workmanship and any one is cause for rejection:
   1. Irregular or distorted shape (not as provided or designed)
   2. Dents or bends
   3. Damaged, broken, delaminated or scaled coating
   4. Loose bolts or nuts
   5. Uneven laps
   6. Improper fitting joints
   7. Any damage which compromises the functionality and design life of the pipe.

C. Coatings:

   1. Department will take a representative sample from each lot furnished to conduct verification testing.

END OF SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 02612S

DRAINAGE IMPROVEMENTS

(Catch Basin – Contingency Item, Concrete Pipe Inlet, Clean Catch Basins, Concrete Curb, and Culvert End Sections)

PART I GENERAL

1.1 SECTION INCLUDES

A. This special provision combines Sections 01892, 02613, 02635, 02771, 02776, 03211, and 03310 into one item.

B. Materials, and procedure for constructing catch basins, constructing concrete pipe inlets, cleaning catch basins and outlet pipes, constructing culvert end sections, and constructing concrete curb. Including all concrete, reinforcing steel, grates, covers, frames, manhole steps, and other items to furnish the completed drainage improvements as indicated.

1.2 RELATED SECTIONS

A. Section 01892: Reconstruct Catch Basin, Cleanout, Meter, Valve, Manhole, and Monument Boxes.

B. Section 02610: Pipe, Pipe-Arch, Structural Plate Pipe, and Structural Pipe Arch.

C. Section 02613: Culvert End Sections

D. Section 02635: Grates, Solid Covers, Frames, and Manhole Steps.

E. Section 02771: Curbs, Gutters, Driveways, Pedestrian Access Ramps, and Plowable End Sections.

F. Section: 02776: Concrete Sidewalk, Median Filler, and Flatwork.

G. Section 03211: Reinforcing Steel and Welded Wire.

H. Section 03310: Structural Concrete.

I. Section 02317: Structural Excavation.

J. Section 02324: Compaction.

PART 2 PRODUCTS

2.1 MATERIALS

A. Refer to the applicable sections listed in 1.2 above for each product used.

PART 3 EXECUTION

3.1 INSTALLATION

A. Refer to the applicable section listed in 1.2 above for installation of each product.

B. See detail drawing “Concrete Pipe Inlets” for additional installation and configuration information of concrete pipe inlets.

C. Concrete curb to match existing configuration.

D. Contractor to provide all necessary equipment and labor to clean catch basins (includes outlet pipes) as directed by the engineer. Inlets and boxes are to be cleared of all unsuitable material to allow positive drainage. Material removed from structures to be properly disposed of by the Contractor.

END OF SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 02721M

UNTREATED BASE COURSE (UTBC)

Replace paragraph A of Article 1.1 SECTION INCLUDES with the following:

A. Production, construction, and compaction of untreated base course material used as shoulder dressing.

Replace Tables 3 and 4 of Article 2.1 AGGREGATES with the following:

Table 3

Aggregate Properties		
Dry Rodded Unit Weight	Not less than 75 lbs/ft^3	AASHTO T 19
Material Passing No.40 Sieve	P. I. 0 to 8	AASHTO T 90
Aggregate Wear	Not to exceed 50 percent.	AASHTO T 96
Dry Weight Values	Within bands shown in Table 4	
Gradation Limits	Table 4	AASHTO T 11 AASHTO T 27

Table 4

Gradation Limits - Single Value Job-Mix Formula			
Sieve Size	**Percent Passing of Total Aggregate (Dry Weight)**		
	1-1/2 inch	1 inch	3/4 inch
1-1/2 inch	100	--	--
1 inch	--	100	--
3/4 inch	81 -91	--	100
½ inch	67 - 77	79 - 91	--
3/8 inch	--	--	78 - 92
No. 4	43 - 53	49 - 61	55 - 67
No. 16	23 - 29	27 - 35	28 - 38
No. 200	6 - 14	7 - 14	7 - 14

Untreated Base Course: Based on fine and coarse aggregate having approximately the same bulk specific gravities.

Replace paragraph C of Article 3.2 INSTALLATION with the following:

C. Maintain the optimum moisture content ±2 percent at the time of compaction. AASHTO T 180, Method D. Untreated base course for shoulder dressing will be accepted on a basis of visual inspection and will require a minimum of two roller passes. Use a hand vibratory compactor around obstacles. Place material in 6 inch layers on slopes and compact each layer prior to placing next layer. Additional moisture to be added to each layer as directed by the Engineer to allow consolidation of material during compaction. Approval from the engineer in writing will be required for deviation from this article.

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 02742S

PROJECT SPECIFIC SURFACING REQUIREMENTS

Add Section 02742:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Required PG Asphalt or emulsion.

B. Number of gyrations to use for Superpave Mix Design.

PART 2 PRODUCTS

2.1 MIXES

A. Hot Mix Asphalt (HMA): (Refer to bid item for size)

1. PG __64-34_____ Asphalt.

2. $N_{initial}$ __8_____ N_{design} ___100_____ N_{final} ____160_____

B. Open-Graded Surface Course:

1. PG _____N/A_____ Asphalt.

C. Chip Seal

1. Type of asphalt emulsion _____N/A_____

D. Prime Coat/Tack Coat

1. Type of emulsified asphalt _____CSS-1H_____

PART 3 EXECUTION Not used

END OF SECTION

Supplemental Specification
2005 Standard Specification Book

SECTION 02745

ASPHALT MATERIAL

Delete Section 02745 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Asphalt materials

1.2 PAYMENT PROCEDURES

A. Price adjustments for asphalt cement and liquid asphalt (chip-seal emulsions and/or cut-backs):
   1. Standard department procedures governs price adjustments made where asphalt material does not conform to the specifications
      a. If the price adjustment exceeds 30 percent, the Engineer may order the removal of any or all the defective asphalt material.
      b. The pay factor for such material is 0.50 when allowed to remain in place.

B. Price adjustments for Performance Graded Asphalt Binder (PGAB):
   1. Standard department PGAB management plan governs price reductions or removal of material where the binder does not conform to the specifications.

1.3 REFERENCES

A. AASHTO M 81: Cut-Back Asphalt (Rapid-Curing Type)

B. AASHTO M 82: Cut-Back Asphalt (Medium-Curing Type)

C. AASHTO M 140: Emulsified Asphalt

D. AASHTO M 208: Cationic Emulsified Asphalt

E. AASHTO M 226: Viscosity Graded Asphalt Cement

F. AASHTO M 320: Performance Graded Asphalt Cement

G. AASHTO R 28: Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)

H. AASHTO T 44: Solubility of Bituminous Materials

I. AASHTO T 48: Flash and Fire Points by Cleveland Open Cup

J. ASHTO T 49: Penetration of Bituminous Materials

K. AASHTO T 50: Float Test for Bituminous Materials

L. AASHTO T 51: Ductility of Bituminous Materials

M. AASHTO T 59: Testing Emulsified Asphalt

N. AASHTO T 201: Kinematic Viscosity of Asphalts

O. AASHTO T 228: Specific Gravity of Semi-Solid Bituminous Materials

P. AASHTO T 240: Effect of Heat and Air on a Moving Film of Asphalt (Rolling Thin-Film Oven Test)

Q. AASHTO T 300: Force Ductility of Bituminous Materials

R. AASHTO T 301: Elastic Recovery Test of Bituminous Materials by Means of a Ductilometer

S. AASHTO T 313: Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)

T. AASHTO T 314: Determining the Fracture Properties of Asphalt Binder in Direct Tension

U. AASHTO T 315: Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)

V. AASHTO T 316: Viscosity Determination of Asphalt Binder Using Rotational Viscometer

W. ASTM D 92: Flash and Fire Points by Cleveland Open Cup

X. ASTM D 1190: Concrete Joint Sealer, Hot-Applied Elastic Type

Y: ASTM D 2006: Method of Test for Characteristic Groups in Rubber Extender and Processing Oils by the Precipitation Method.

Z. ASTM D 2007: Characteristic Groups in Rubber Extender and Processing Oils and Other Petroleum-Derived Oils by the Clay-Gel Absorption Chromatographic Method

AA. ASTM D 2026: Cutback Asphalt (Slow-Curing Type)

BB. ASTM D 3405: Joint Sealants, Hot-Applied, for Concrete and Asphalt Pavements

CC. ASTM D 4402: Viscosity Determinations of Unfilled Asphalts Using the Brookfield Thermosel Apparatus

DD. ASTM D 5329: Sealants and Fillers, Hot-Applied, For Joints and Cracks in Asphaltic and Portland Cement Concrete Pavements

EE. ASTM D 5801: Toughness and Tenacity of Bituminous Materials

FF. California Test Methods

GG. UDOT Materials Manual of Instruction

HH. UDOT Minimum Sampling and Testing Guide

1.4 SUBMITTALS

A. For each shipment of material, supply a vendor-prepared bill of lading showing the following information:
   1. Type and grade of material
   2. Type and amount of additives, used, if applicable
   3. Destination
   4. Consignee's name
   5. Date of Shipment
   6. Railroad car or truck identification
   7. Project number
   8. Loading temperature
   9. Net weight in tons (or net gallons corrected to 60 degrees F, when requested)
   10. Specific gravity
   11. Bill of lading number
   12. Manufacturer of asphalt material

1.5 DELIVERY, STORAGE, AND HANDLING

A. Each shipment of asphalt material must:
   1. Be uniform in appearance and consistency.
   2. Show no foaming when heated to the specified loading temperature.

B. Do not supply shipments contaminated with other asphalt types or grades than those specified.

1.6 GRADE OF MATERIAL

A. The Engineer determines the grade of material to be used based on the supply source designated by the Contractor when the bid proposal lists more than one grade of asphalt material.

PART 2 PRODUCTS

2.1 PERFORMANCE GRADED ASPHALT BINDER (PGAB)

A. Supply PGABs under the Approved Supplier Certification (ASC) System. Refer to the UDOT Minimum Sampling and Testing Guide, Section 509, Asphalt Binder Management Plan.

B. As specified in AASHTO M 320 for all PGABs having algebraic differences less than 92 degrees between the high and low design temperatures.

C. As specified in Tables 1, 2, 3, 4, 5, 6, 7, and 8 for all PGABs having algebraic differences equal to or greater than 92 degrees between the high and low design temperatures.

Table 1

PG58-34		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@58°C, G*, kPa	1.30 Min.
	@58°C, phase angle, degrees	74.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@58°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	65 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@16°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-24°C, S, MPa	300 Max.
	@-24°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-24°C, Failure Strain, %	1.5 Min.
	@-24°C, Failure Stress (b), MPa	4.0 Min.

(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…

(b) No allowances will be given for passing at a colder grade

Table 2

PG64-28		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*, kPa	1.30 Min.
	@64°C, phase angle, degrees	74.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	65 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@ 22°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-18°C, S, MPa	300 Max.
	@-18°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-18°C, Failure Strain, %	1.5 Min.
	@-18°C, FailureStress (b), Mpa	4.0 Min.

(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…

(b) No allowances will be given for passing at a colder grade

Table 3

PG64-34		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*, kPa	1.30 Min.
	@64°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T-240		
Dynamic Shear Rheometer, AASHTO T 315	@64°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	70 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@19°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-24°C, S, MPa	300 Max.
	@-24°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-24°C, Failure Strain, %	1.5 Min.
	@-24°C, FailureStress (b), MPa	4.0 Min.
(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…		
(b) No allowances will be given for passing at a colder grade		

Table 4

PG70-22		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*, kPa	1.30 Min.
	@70°C, phase angle, degrees	74.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	65 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@28°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-12°C, S, MPa	300 Max.
	@-12°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-12°C, Failure Strain, %	1.5 Min.
	@-12°C, FailureStress (b), MPa	4.0 Min.
(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…		
(b) No allowances will be given for passing at a colder grade		

Table 5

PG70-28		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*, kPa	1.30 Min.
	@70°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	70 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@25°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-18°C, S, MPa	300 Max.
	@-18°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-18°C, Failure Strain, %	1.5 Min.
	@-18°C, FailureStress (b), MPa	4.0 Min.
(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…		
(b) No allowances will be given for passing at a colder grade		

Table 6

PG70-34		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*, kPa	1.30 Min.
	@70°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135 °C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@70°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	75 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@22°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-24°C, S, MPa	300 Max.
	@-24°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-24°C, Failure Strain, %	1.5 Min.
	@-24°C, FailureStress (b), MPa	4.0 Min.
(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…		
(b) No allowances will be given for passing at a colder grade		

Table 7

PG76-22		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*, kPa	1.30 Min.
	@76°C, phase angle, degrees	71.0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	70 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@ 31°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-12°C, S, MPa	300 Max.
	@-12°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-12°C, Failure Strain, %	1.5 Min.
	@-12°C, FailureStress (b), MPa	4.0 Min.
(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…		
(b) No allowances will be given for passing at a colder grade		

Table 8

PG76-28		
Original Binder		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*, kPa	1.30 Min.
	@76°C, phase angle, degrees	71. 0 Max.
Rotational Viscometer, AASHTO T 316	@135°C, Pa.s	3 Max.
Flash Point, AASHTO T 48	°C	260 Min.
RTFO Residue, AASHTO T 240		
Dynamic Shear Rheometer, AASHTO T 315	@76°C, G*/sinδ, kPa	2.20 Min.
Elastic Recovery, AASHTO T 301 mod (a)	%	75 Min.
PAV Residue, 20 hours, 2.10 Mpa, 100 °C, AASHTO R 28		
Dynamic Shear Rheometer, AASHTO T 315	@28°C, kPa	5000 Max.
Bending Beam Rheometer, AASHTO T 313	@-18°C, S, MPa	300 Max.
	@-18°C, m-value	0.300 Min.
Direct Tension Test, AASHTO T 314	@-18°C, Failure Strain, %	1.5 Min.
	@-18°C, FailureStress (b), MPa	4.0 Min.
(a) Modify paragraph 4.5 as follows: After 20 cm has been reached, stop the ductilometer and within 2 seconds, sever the specimen at its center with a pair of scissor…		
(b) No allowances will be given for passing at a colder grade		

2.2 ASPHALTIC CEMENT, LIQUID ASPHALTS, REJUVENATING AGENTS

A. As specified in AASHTO M 226, Table 2 with the following modifications:
   1. Delete and replace ductility at 77°F (25°C) with ductility at 39.2°F (4°C) with values as detailed below.

AC - 2.5	AC - 5	AC - 10	AC - 20
50+	25+	15+	5+

B. As specified for cationic and anionic emulsified asphalt.
   1. All standard Slow Setting (SS, CSS), Medium Setting (MS, CMS), and Rapid Setting (RS, CRS) grades; inclusive of all High-Float designations (HF).
   2. Supply under the Approved Supplier Certification System (ASC).
   3. Meet AASHTO M 208 and M 140.

C. Conform to the requirements of one of these tables:
   1. Table 9: Cationic Rapid Setting Emulsified Polymerized Asphalt (CRS-2P)
   2. Table 10: Latex Modified Cationic Rapid Setting Emulsified Asphalt (LMCRS-2)
   3. Table 11: Cationic Medium Setting Emulsified Asphalt (CMS-2S)
   4. Table 12: High Float Medium Setting Emulsified Asphalt (HFMS-2)
   5. Table 13: High Float Medium Setting Emulsified Polymerized Asphalt (HFMS-2P)
   6. Table 14: High Float Medium Setting Emulsified Polymerized Asphalt (HFMS-2SP)
   7. Table 15: High Float Rapid Setting Emulsified Polymerized Asphalt (HFRS-2P).
   8. Table 16: Setting Cationic Rapid Emulsified Asphalt (CRS-2A, B)

D. Curing cut-back asphalt:
   1. As specified for slow curing (SC) in ASTM D 2026.
   2. As specified for medium curing (MC) in AASHTO M 82.
   3. As specified for rapid curing (RC) in AASHTO M 81.

E. Conform to requirements for Emulsified Asphalt Pavement Rejuvenating Agent:
   1. Table 17: Type A
   2. Table 18: Type B
   3. Table 19: Type B Modified
   4. Table 20: Type C
   5. Table 21: Type D

Table 9

Cationic Rapid Setting Emulsified Polymerized Asphalt (CRS-2P)			
Tests	**AASHTO Test Method**	**Min.**	**Max.**
Emulsion			
Viscosity , SF, 140°F (60°C), s (Project-site Acceptance/Rejection Limits)	T59	100	400
Settlement (a) 5 days, percent	T 59		5
Storage Stability Test (b) 1 d, 24 h, percent	T 59		
Demulsibility (c) 35 ml, 0.8% sodium dioctyl Sulfosucinate, percent	T 59	40	
Particle Charge Test	T 59	Positive	
Sieve Test, percent	T 59		0.10
Distillation			
Oil distillate, by volume of emulsion, percent			0
Residue (d), percent		68	
Residue from Distillation Test			
Penetration, 77°F(25°C), 100 g, 5 s, dmm	T 49	80	150
Ductility, 39.2°F(4°C), 5 cm/min, cm Toughness, lb-in Tenacity, lb-in	T 51 ASTM D 5801 ASTM D 5801	35 75 50	
Solubility in trichloroethylene, percent	T 44	97.5	

(a) The test requirement for settlement may be waived when the emulsified asphalt is used in less than a five-day time; or the purchaser may require that the settlement test be run from the time the sample is received until it is used, if the elapsed time is less than 5 days.

(b) The 24-hour (1-day) storage stability test may be used instead of the five-day settlement test.

(c) The demulsibility test is made within 30 days from date of shipment.

(d) Distillation is determined by AASHTO T 59, with modifications to include a 350 ± 5°F (177±3°C) maximum temperature to be held for 15 minutes.

Modify the asphalt cement prior to emulsification.

Table 10

Latex Modified Cationic Rapid Setting Emulsified Asphalt (LMCRS-2)			
Tests	**AASHTO Test Method**	**Min.**	**Max.**
Emulsion			
Viscosity, SF, 122°F (50°C), s (Project Site Acceptance/Rejection Limits)	T59	140	400
Settlement (a) 5 days, percent	T 59		5
Storage Stability Test (b) 1 d, 24 h, percent	T 59		1
Demulsibility (c) 35 ml, 0.8% sodium dioctyl Sulfosucinate, percent	T 59	40	
Particle Charge Test	T 59	Positive	
Sieve Test, percent	T 59		0.3
Distillation			
Oil distillate, by volume of emulsion, percent			0
Residue (d), percent		65	
Residue from Distillation Test			
Penetration, 77°F (25°C), 100 g, 5 s, dmm	T 49	40	200
Torsional Recovery (e)		18	

(a) The test requirement for settlement may be waived when the emulsified asphalt is used in less than a five-day time; or the purchaser may require that the settlement test be run from the time the sample is received until it is used, if the elapsed time is less than 5 days.

(b) May use the 24-hour (1-day) storage stability test instead of the five-day settlement test.

(c) Make the demulsibility test within 30 days from date of shipment.

(d) Determine distillation by AASHTO T 59,with modifications to include a 350 ± 5°F (177±3°C) maximum temperature to be held for 15 minutes.

(e) CA 332 (California Test Method)

Co-mill latex and asphalt during emulsification

Table 11

Cationic Medium Setting Emulsified Asphalt (CMS-2S)		
Tests	**AASHTO Test Method**	**Specification**
Emulsion		
Viscosity, SF, 122°F (50°C), s	T 59	50 - 450
Percent residue	T 59	60 min
Storage Stability Test, 1d, 24h, percent	T 59	1 max
Sieve, percent	T 59	0.10 max
Particle charge	T 59	Positive
Oil Distillate, percent by volume of emulsion	T 59	5-15
Residue		
Penetration, 77°F (25°C), 100g, 5 sec, dmm	T 59	100-250
Solubility, percent	T 59	97.5 min.

Table 12

High Float Medium Setting Emulsified Asphalt (HFMS-2)			
Tests	**AASHTO Test Method**	**Min.**	**Max.**
Emulsion			
Viscosity, SF, 122°F (50°C), s (Project Site Acceptance/Rejection Limits	T59	70	300
Storage Stability Test, 1d, 24 h, percent	T59		1.0
Sieve Test , percent	T59		0.1
Distillation	T59		
Oil Distillate, by volume of emulsion, percent	T59	NA	NA
Residue, percent	T59	65	
Residue from Distillation Test			
Penetration, 77°F (25°C), 100g, 5 s, dmm	T49	50	200
Float Test, 140°F (60°C), s	T50	1200	
Solubility in Trichloroethylene, percent	T44	97.5	
Ductility, 77°F (25°C) 5cm/min, cm	T51	40	

Table 13

High Float Medium Setting Emulsified Polymerized Asphalt (HFMS-2P) (a)			
Tests	**AASHTO Test method**	**Min.**	**Max.**
Emulsion			
Viscosity, SF, 122°F (50°C), s (Project Site Acceptance/Rejection Limits)	T 59	100	450
Storage Stability Test, 1 d, 24 h, percent	T 59		1.0
Sieve Test, percent	T 59		0.1
Distillation			
Oil distillate, by volume of emulsion, percent	T 59		7
Residue (b), percent	T 59	65	
Residue from Distillation Test			
Penetration, 77°F (25°C), 100 g, 5 s, dmm	T 49	70	300
Float Test, 140°F (60°C), s	T 50	1200	300
Solubility in trichloroethylene, percent	T 44	97.5	
Elastic Recovery, 77°F (25°C), percent	T 301	50	

(a) Supply an HFMS-2P (anionic, polymerized, high-float) as an emulsified blend of polymerized asphalt cement, water, and emulsifiers. Polymerize the asphalt cement with a minimum of 3.0% polymer by weight of the asphalt cement prior to emulsification. After standing undisturbed for a minimum of 24 hours, the emulsion shall be smooth and homogeneous throughout with no white, milky separation, pumpable, and suitable for application through a distributor.

(b) Determine the distillation by AASHTO T 59, with modifications to include a 350± 5°F (177±3°C) maximum temperature to be held for 15 minutes.

Table 14

High Float Medium Setting Emulsified Polymerized Asphalt (HFMS-2SP) (a)			
Tests	**AASHTO Test method**	**Min.**	**Max.**
Emulsion			
Viscosity, SF, 122°F (50°C), s (Project Site Acceptance/Rejection Limits)	T 59	50	450
Storage Stability Test, 1 d, 24 h, percent	T 59		1
Sieve Test, percent	T 59		0.1
Distillation			
Oil distillate, by volume of emulsion, percent	T 59		7
Residue (b), percent	T 59	65	
Residue from Distillation Test			
Penetration, 77°F (25°C), 100 g, 5 s, dmm	T 49	150	300(c)
Float Test, 140°F (60°C), s	T 50	1200	
Solubility in trichloroethylene, percent	T 44	97.5	
Elastic Recovery(d), 77°F (25°C), percent	T 301	50	

(a) Supply an HFMS-2SP (anionic, polymerized, high-float) as an emulsified blend of polymerized asphalt cement, water, and emulsifiers. Polymerize the asphalt cement with a minimum of 3.0% polymer by weight of the asphalt cement prior to emulsification. After standing undisturbed for a minimum of 24 hours, the emulsion shall be smooth and homogeneous throughout with no white, milky separation, pumpable, and suitable for application through a distributor.

(b) Determine the distillation by AASHTO T 59, with modifications to include a 350± 5°F (177±3°C) maximum temperature to be held for 15 minutes.

(c) When approved by the Engineer, Emulsified Asphalt (HFMS-2SP) with a residual penetration greater than 300 dmm may be used with Cold Bituminous Pavement (Recycle) to address problems with cool weather or extremely aged existing pavement.

(d) Report only when penetration is greater than 300 dmm.

Table 15

High Float Rapid Setting Emulsified Polymerized Asphalt (HFRS-2P) (a)			
Tests	**AASHTO Test method**	**Min.**	**Max.**
Emulsion			
Viscosity, SF @ 122°F (50°C), s (Project Site Acceptance/Rejection Limits)	T 59	50	450
Storage Stability Test (b) 1 d, 24 h, percent	T 59		1
Demulsibility 0.02 N Ca Cl_2, percent	T 59	40	
Sieve Test, percent	T 59		0.1
Distillation			
Oil distillate, by volume of emulsion, percent	T 59		3
Residue (b), percent	T 59	65	
Residue from Distillation Test			
Penetration, 77°F (25°C), 100 g, 5 s, dmm	T 49	70	150
Float Test, 140°F (60°C), s	T 50	1200	
Solubility in trichloroethylene, percent	T 44	97.5	
Elastic Recovery, 77°F (25°C), percent	T 301	58	

(a) Supply an HFMS-2SP (anionic, polymerized, high-float) as an emulsified blend of polymerized asphalt cement, water, and emulsifiers. Polymerize the asphalt cement with a minimum of 3.0% polymer by weight of the asphalt cement prior to emulsification. After standing undisturbed for a minimum of 24 hours, the emulsion shall be smooth and homogeneous throughout with no white, milky separation, pumpable, and suitable for application through a distributor.

(b) Determine the distillation by AASHTO T 59, with modifications to include a 350 ± 5°F (177±3°C) maximum temperature to be held for 15 minutes.

Table 16

Cationic Rapid Setting Emulsified Asphalt (CRS-2A,B)			
Tests	**AASHTO Test Method**	**Min**	**Max**
Emulsion			
Viscosity, SF, 122°F (50°C), s (Project Site Rejection/Acceptance Limits)	T 59	140	400
Storage stability test, 24 h, percent	T 59		1
Demulsibility, 35 mL 0.8 percent Sodium Dioctyl Sulfosucinate, percent	T 59	40	
Particle charge test	T 59	Positive	
Sieve test, percent	T 59		0.10
Distillation			
Oil distillate, by volume of emulsion, percent	T 59		0
Residue, percent	T 59	65	
Use PG58-22 and PG64-22 as base asphalt cement for CRS-2A, B, respectively. Specification for high temperature performance: original and RTFO G*/sinδ within 3°C of grade.			

Table 17

Emulsified Type A Asphalt Pavement Rejuvenating Agent Concentrate		
Property	**Test Method**	**Limits**
Viscosity, SF, 77°F (25°C), s	AASHTO T 59	15 Min 40 Max
Residue , percent W (a)	AASHTO T 59	60 Min. 65 Max.
Miscibility Test (b)	AASHTO T-59	No Coagulation
Sieve Test, percent W (c)	AASHTO T 59	0.20 Max.
5-day Settlement, percent W	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
Light Transmittance , %	UDOT MOI 8-973	30 Max.
Cement Mixing	AASHTO T-59	2 Max.
Residue from Distillation (a)		
Viscosity, 140 ºF (60°C), mm^2/s	ASTM D 4402	150 - 300
Flash Point, COC, °F (°C)	AASHTO T 48	385 Min.
Asphaltenes, percent W	ASTM D 2006-70	0.4 Min. 0.75 Max.
Maltene Distribution Ratio $(PC + A_1)/(S + A_2)$ (d)	ASTM D 2006-70	0.3 Min. 0.6 Max
Saturated Hydrocarbons, S (d)	ASTM D 2006-70	21 Min. 28 Max.
PC/S Ratio (d)	ASTM D 2006-70	1.5 Min.

(a) AASHTO T 59 , Evaporation Test, modified as follows: Heat a 50 gram sample to 300 ºF until foaming ceases, then cool immediately and calculate results.

(b) AASHTO T 59, modified as follows: use a 0.02 Normal Calcium Chloride solution in place of distilled water.

(c) AASHTO T 59, modified as follows: use distilled water in place of a two percent sodium oleate solution.

(d) Chemical composition by ASTM Method D-2006-70:
PC= Polar Compounds, A_1 = First Acidaffins
A_2 = Second Acidaffins, S = Saturated Hydrocarbons

Table 18

Emulsified Type B Asphalt Pavement Rejuvenating Agent Concentrate		
Tests	**Test Method**	**Limits**
Viscosity, SF, 77°F (25°C), s	AASHTO T 59	25-150
Residue, percent W	AASHTO T 59 (mod) (a)	62 Min.
Sieve Test, percent W	AASHTO T 59	0.10 Max.
5-day Settlement	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
Pumping Stability (b)		Pass
Residue from Distillation (a)		
Viscosity @ 140°F (60°C), mm^2/s	AASHTO T 201	2500-7500
Solubility in 1,1,1 Trichloroethylene, percent	AASHTO T 44	98 Min.
Flash Point, COC	ASTM D 92	204°C, Min.
Asphaltenes, percent W	ASTM D 2007	15 Max.
Saturates, percent W	ASTM D 2007	30 Max.
Aromatics, percent W	ASTM D 2007	25 Min.
Polar Compounds, percent W	ASTM D 2007	25 Min.
(a) Determine the distillation by AASHTO T 59 with modifications to include a 300 ±5°F (149±3°C) maximum temperature to be held for 15 minutes.		
(b) Test pumping stability by pumping 475 ml of Type B diluted 1 part concentrate to 1 part water, at 77°F (25°C) through a 1/4 inch gear pump operating at 1750 rpm for 10 minutes with no significant separation or coagulation in pumped material.		
Type B: an emulsified blend of, lube oil and/or lube oil extract, and petroleum asphalt.		

Table 19

Emulsified Type B Modified Asphalt Pavement Rejuvenating Agent Concentrate		
Property	**Test Method**	**Limits**
Viscosity, SF, 77°F (25°C), s	AASHTO T 59	50-200
Residue(a), percent W	AASHTO T 59	62 Min.
Sieve Test, percent W	AASHTO T 59	0.20 Max.
5-day Settlement, percent W	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
Pumping Stability (b)		Pass
Residue from Distillation (a)		
Viscosity (c) 275°F (135°C), cP	ASTM D 4402	150 - 300
Penetration, 77°F (25°C), dmm	AASHTO T 49	180 Min.
Solubility in 1,1,1 Trichloroethylene, percent	AASHTO T 44	98 Min.
Flash Point, COC, °F (°C)	AASHTO T 48	400(204) Min.
Asphaltenes, percent W	ASTM D 2007	20-40
Saturates, percent % W	ASTM D 2007	20 Max.
Polar Compounds, percent W	ASTM D 2007	25 Min.
Aromatics, percent W	ASTM D 2007	20 Min.
PC/S Ratio	ASTM D 2007	1.5 Min.
(a) Determine the distillation by AASHTO T 59 with modifications to include a 300±5°F (149± 3°C) maximum temperature to be held for 15 minutes. (b) Pumping stability is tested by pumping 475 ml of Type B diluted 1 part concentrate to 1 part water, at 77°F (25°C) through a 1/4 inch gear pump operating at 1750 rpm for 10 minutes with no significant separation or coagulation in pumped material. (c) Brookfield Thermocel Apparatus-LV model. ≥ 50 rpm with a #21 spindle, 7.1 g residue, at > 10 torque		
As required by the Asphalt Emulsion Quality Management Plan, UDOT Minimum Sampling and Testing Guide, Section 508) the supplier certifies that the base stock contains a minimum of 15% by weight of Gilsonite Ore. Use the HCL precipitation method as a qualitative test to detect the presence of Gilsonite.		

Table 20

Emulsified Type C Asphalt Pavement Rejuvenating Agent Concentrate		
Property	**Test Method**	**Limits**
Viscosity, SF, 77°F (25°C), s	AASHTO T 59	10-100
Residue (a), percent W (Type C supplied ready to use 1:1 or 2:1.	AASHTO T 59	30 Min. 1:1 40 Min. 2:1
Sieve Test, percent W (b)		0.10 Max.
5-day Settlement, percent W	AASHTO T 59	5.0 Max.
Particle Charge	AASHTO T 59	Positive
pH (May be used if particle charge test is inconclusive)		2.0 - 7.0
Pumping Stability (c)		Pass
Tests of Residue from Distillation (a)		
Viscosity, 275°F (135°C), mm^2/s	AASHTO T 201	475-1500
Solubility in 1,1,1 Trichloroethylene, percent	AASHTO T 44	97.5 Min.
RTFO mass loss, percent W	AASHTO T 240	2.5 Max.
Specific Gravity	AASHTO T 228	0.98 Min.
Flash Point, COC	AASHTO T 48	232 °C, Min.
Asphaltenes, percent W	ASTM D 2007	25 Min., 45 Max.
Saturates, percent W	ASTM D 2007	10 Max.
Polar Compounds, percent W	ASTM D 2007	30 Min.
Aromatics, percent W	ASTM D 2007	15 Min.

(a) Determine the distillation by AASHTO T 59 with modifications to include a 300± 5°F (149 ± 3°C) maximum temperature to be held for 15 minutes.

(b) Test method identical to AASHTO T 59 except that distilled water is used in place of 2 % sodium oleate solution.

(c) Test pumping stability by pumping 475 ml of Type diluted 1 part concentrate to 1 part water, at 77°F (25°C) through a 1/4 inch gear pump operating at 1750 rpm for 10 minutes with no significant separation or coagulation in pumped material.

As required by the Asphalt Emulsion Quality Management Plan, UDOT Minimum Sampling and Testing Guide, Section 508), the supplier certifies that the base stock contains a minimum of 10% by weight of Gilsonite ore. Use the HCL precipitation method as a qualitative test to detect the presence of Gilsonite.

Table 21

Emulsified Type D Asphalt Pavement Rejuvenating Agent Concentrate		
Property	**Test Method**	**Limits**
Viscosity, SF, 77°F (25°C), s	AASHTO T 59	30-90
Residue, (b) percent W	AASHTO T 59	65
Sieve Test, percent W	AASHTO T 59	0.10 Max.
pH		2.0 - 5.0
Residue from Distillation (b)		
Viscosity, 140°F (60°C), cm^2/s	AASHTO T 201	300-1200
Viscosity, 275°F (135°C), mm^2/s	AASHTO T 201	300 Min.
Modified Torsional Recovery (a) percent	CA 332 (Mod)	40 Min.
Toughness, 77°F (25°C), in-lb	ASTM D 5801	8 Min.
Tenacity, 77°F (25°C), in-lb	ASTM D 5801	5.3 Min.
Asphaltenes, percent W	ASTM D 2007	16 Max.
Saturates, percent W	ASTM D 2007	20 Max.
(a) Torsional recovery measurement to include first 30 seconds.		
(b) Determine the distillation by AASHTO T 59 with modifications to include a 300±5°F (149±3°C) maximum temperature to be held for 15 minutes.		

2.3 HOT-POUR CRACK SEALANT FOR BITUMINOUS CONCRETE

A. Combine a homogenous blend of materials to produce a sealant meeting properties and tests in Table 22.

B. Packaging and Marking: Supply sealant pre-blended, pre-reacted, and pre-packaged in lined boxes weighing no more than 30 lb.
   1. Use a dissolvable lining that will completely melt and become part of the sealant upon subsequent re-melting.
   2. Deliver the sealant in the manufacturer's original sealed container. Clearly mark each container with the manufacturer's name, trade name of sealant, batch or lot number, and recommended safe heating and application temperatures.

Table 22

Hot-Pour Bituminous Concrete Crack Sealant			
Application Properties:			
Workability:	Pour readily and penetrate 0.25 inch and wider cracks for the entire application temperature range recommended by the manufacturer.		
Curing:	No tracking caused by normal traffic after 45 minutes from application.		
Asphalt Compatibility: ASTM D 5329, Section 14.	No failure in adhesion. No formation of an oily ooze at the interface between the sealant and the bituminous concrete or softening or other harmful effects on the bituminous concrete.		
Material Handling:	Follow the manufacturer's safe heating and application temperatures.		
Test Method	**Property**	**Minimum**	**Maximum**
AASHTO T 51	Ductility, modified, 1cm/min, 39.2°F (4°C), cm	30	
UDOT method 967	Cold Temperature Flexibility	no cracks	
AASHTO T 300 (a)	Force-Ductility, lb force		4
ASTM D 5329	Flow 140°F (60°C), 5 hrs 75°angle, mm		3
ASTM D 3405 (b)	Tensile-Adhesion, modified	300%	
AASHTO T 228	Specific Gravity, 60°F (15.6°C)		1.140
ASTM D 5329	Cone Penetration, 77°F (25°C), 150 g, 5 sec., dmm		90
ASTM D 5329	Resilience, 77°F (25°C), 20 sec., percent	30	
ASTM D 4402	Viscosity, 380°F (193.3°C), SC4-27 spindle, 20 rpm, cP		2500
ASTM D 5329	Bond as per ASTM D 1190, Section 6.4		Pass

(a) Maximum of 4 lb force during the specified elongation of 30 cm @ 1 cm/min, 39.2°F (4°C).

(b) Use ASTM D 3405, Section 6.4.1. Delete bond and substitute tensile-adhesion test in accordance to D 5329.

PART 3 EXECUTION Not used

END OF SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 02772S

POTHOLE PATCHING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Item to patch potholes and level depressions.

1.2 RELATED SECTIONS

A. Section 02741: Hot Mix Asphalt (HMA)

B. Section 02748: Prime Coat/Tack Coat.

PART 2 PRODUCTS

A. Hot Mix Asphalt – 1/2 inch.

B. Prime Coat/Tack Coat – Emulsified Asphalt CSS-1H.

PART 3 EXECUTION

A. Contractor is to identify approximate limits of areas with unstable pavement, where guardrail posts have been removed and will not be replaced, areas around the base of new guardrail posts, concrete pipe inlets, catch basins, curb and existing asphalt ditches that require repairs using pothole patching. The Engineer will approve the limits identified by the Contractor prior to the beginning of any work to repair the area.

B. Excavate and patch the areas identified and approved prior to the placement of Asphalt Slurry Seal Coat. All patched locations to have slurry seal coat.

C. Areas may be excavated with backhoe or hand tools. Edges must be sawed or cut square.

D. The Contractor will be required to excavate to a 4 inch depth, tack, patch with Hot Mix Asphalt and compact. Eroded areas may require placing shoulder dressing prior to placing patch to match existing grades.

E. Item includes all equipment, materials, labor and handwork to construct asphalt berm as shown in Concrete Pipe Inlet detail. Each asphalt berm is to placed at the downstream end of the concrete pipe inlets and extend from the existing edge of SMA to the concrete pipe inlet. Asphalt berms are to be compacted and have a uniform shape.

F. Specific material requirements determined by the Engineer.

END OF SECTION

October 5, 2005

SPECIAL PROVISION

PROJECT #STP-0091(25)0

SECTION 02787S

ASPHALT SLURRY SEAL COAT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Products and procedures for mixing and spreading a properly proportioned mixture of fine graded aggregate, mineral filler, emulsified asphalt, and water.

B. The cured slurry will have a homogeneous appearance, fill all cracks, adhere firmly to the surface, and have a skid resistant texture.

1.2 REFERENCES

A. AASHTO T 27: Sieve Analysis of Fine and Coarse Aggregates.

B. AASHTO T 176: Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.

C. AASHTO T 278: Surface Frictional Properties Using the British Pendulum Tester.

D. AASHTO T 279: Accelerated Polishing of Aggregates Using the British Wheel.

E. ASTM D 242: Standard Specification for Mineral Filler For Bituminous Paving Mixtures.

F. ASTM D 1073: Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.

G. ASTM D 2397: Standard Specification for Cationic Emulsified Asphalt.

H. ASTM D 3910: Standard Practices for Design, Testing, and Construction of Slurry Seal.

PART 2 PRODUCTS

2.1 EMULSIFIED ASPHALT

A. Cationic emulsified asphalt grade CSS - 1h as specified in ASTM D 2397

B. Grade SS - 1h for anionic emulsified asphalt, or quick setting asphalt emulsion (QSH) or (CQS-1h)

2.2 AGGREGATE

A. Natural or manufactured sand, slag, crushed fines or a combination thereof as specified in ASTM D 1073.

B. Clean and Free from organic matter or other detrimental substances.

C. Aggregate blend shall have a sand equivalent of not less than forty five. AASHTO T 176.

D. Aggregate must meet a minimum polishing value of 38. AASHTO T 278, AASHTO T 279.

2.3 MINERAL FILLER

A. Portland cement, hydrated lime, or aluminum sulfate as specified in ASTM D 242.

2.4 COMBINED AGGREGATE AND MINERAL FILLER

A. Grade with the following limits to meet the specified test standard in AASHTO T 27.

Sieve Size	% Passing
3/8 inch	100
No. 4	70-90
No. 8	45-70
No. 16	28-50
No. 30	19-34
No. 50	12-28
No. 100	7-18
No. 200	5-15

2.5 WATER

A. Potable and free from harmful soluble salts.

2.6 SLURRY SEAL

A. Provide the ENGINEER with the test results from an independent laboratory conforming to the following tests in ASTM D 3910:
   1. Consistency Test
   2. Set Time
   3. Cure Time
   4. Wet Track Abrasion Test

2.7 EQUIPMENT

A. Designed specifically for blending, mixing, and placing of "Slurry Seal", similar and/or equal to the #804 Young Continuous Mix Slurry Machine, capable of producing a satisfactory finished product.

PART 3 EXECUTION

3.1 LIMITATIONS

A. Do not apply slurry seal during rain, when the surface is wet, or during other adverse weather conditions.

B. Do not apply slurry seal if high relative humidity prolongs the curing beyond a reasonable time

C. Apply slurry seal when both the air and pavement temperature is 55° F and rising.

D. Keep traffic off roadway surface until the slurry seal has cured.

E. Do not allow slurry seal or any debris at asphalt drainage channels to leave project area through drainage outlets within the length of the channel.

3.2 STOCKPILING

A. Build stockpile before placing slurry seal.

B. The DEPARTMENT will take acceptance samples of the stockpile the first day and every 500 tons thereafter.

C. If more than one stockpile is constructed, each stockpile will be tested and accepted prior to use.

D. Remove material not meeting specifications from the stockpile area.

E. The DEPARTMENT will retest corrected material for acceptance

F. The DEPARTMENT will provide written acceptance of stockpiles prior to the CONTRACTOR starting slurry seal work.

3.3 PREPARATION

A. Clean the surface of all dirt, sand, dust, or other objectionable material immediately prior to applying the slurry. Use compressed air for cleaning.

B. Protect outlets along asphalt drainage channels to ensure that any debris and the slurry seal product remain at the project site and do not contaminate other water sources.

3.4 APPLICATION

A. Pre-wet the entire surface by fogging ahead of the slurry box at a rate of 0.02 to 0.05 gallons per square yard. Don't let free water sit on the pavement in front of the slurry box.

B. Carry a sufficient amount of slurry in all parts of the spreader so that complete coverage is obtained, but avoid overloading the spreader.

C. Apply slurry mixture at an average rate of 18 pounds per square yard.

D. Areas with less than 15 pounds per square yard shall receive a second application at the contractors expense.

E. Place the slurry mixture onto the surface at the desired consistency. Don't add additional elements once the mixture has been deposited onto the surface.

F. The slurry will be rejected for the following reasons:
1. Lumping, balling, or unmixed aggregates.
2. The slurry has been mixed for more than four minutes.
3. The coarse aggregate has separated from the emulsion and fines.
4. The coarse aggregate has settled to the bottom of the mix.
5. Excessive breaking of emulsion is occurring inside the spreader box.
6. Streaking caused by oversized aggregate.

3.5 FINISHING DETAILS

A. Do not permit build up on longitudinal and transverse joints.

B. Place slurry seal adjacent to concrete pavements or concrete curb and gutter with a straight longitudinal edge. Don't overlap concrete more than 2 inches.

C. All edges shall be straight and neat in appearance.

D. Place slurry seal up to the right-of-way at all public intersections.

E. Use approved squeegees to spread slurry in areas non-accessible to the slurry mixer. Exercise care to avoid unsightly appearance from hand work.

October 5, 2005

SPECIAL PROVISION

SECTION 02969S

OPTIONAL USE OF RECLAIMED ASPHALT PAVEMENT

Delete section 02969 in their entirety and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Option to incorporate Reclaimed Asphalt Pavement (RAP) materials into hot mix asphalt pavement, dense-graded material only.

1.2 RELATED SECTIONS

A. Section 02741: Hot Mix Asphalt (HMA)

B. Section 02745: Asphalt Materials

1.3 RERERENCES

A. AASHTO M 320: Performance Graded Asphalt Binder

B. AASHTO T 164: Quantitative Extraction of Bitumen from Paving Mixtures

C. AASHTO T 170: Recovery of Asphalt from Solution by Abson Method

D. UDOT Materials Manual of Instruction

E. UDOT Minimum Sampling and Testing Guide

1.4 SUBMITTALS

A. Quality Control Plan.
   1. Submit the proportion of materials from each of the RAP stockpiles intended to be used in the project.
   2. Submit the sampling and testing plan for the project.
   3. Provide for testing, by an AMRL accredited laboratory, of the reclaimed material and the total mixture at no additional cost to the Department.
   4. Submit to the Engineer for approval.

PART 2 PRODUCTS

2.1 PG BINDER

A. Select and supply a standard AASHTO M 320 PG Binder meeting the requirements of Sections 02745 and Section 509 of the UDOT Minimum Sampling and Testing Guide: Asphalt Binder Quality Management Plan, in accordance to Table 1.

B. Perform Department Quality Assurance testing on the supplied grade of standard PG Binder in accordance to Section 509.

2.2 MIX DESIGN

A. Obtain Engineer's approval for the use of RAP in the hot mix asphalt.

B. Use up to 30 percent RAP by total weight in the hot mix asphalt, in accordance to Table 1.

C. Provide the following for each RAP Stockpile:
   1. Extracted Gradation
   2. Asphalt Content
   3. SSD Specific Gravity of Extracted RAP

D. Provide the following for the RAP Material combined in proportions for the intended production of HMA:

   1. Performance Grade of recovered asphalt binder.
      a. Use AASHTO T 164, Method E, with reagent grade Trichloroethylene, and AASHTO T 170 to recover the asphalt binder.
      b. Determine the performance grade of the recovered binder in accordance to AASHTO M 320 with the following modification:
         (1) PAV aging is not required before testing for fatigue and low temperature cracking.

E. Select the percentage of RAP by total weight in the hot mix asphalt and the standard, virgin asphalt binder grade meeting Section 02745, using Table 1:

Table 1
Binder Selection Guidelines and Total Allowable RAP for RAP Mixtures

Recovered RAP Asphalt Binder Grade	Desired RAP Percent	Recommended Virgin Asphalt Binder Grade
PGXX-22 or lower	< 20 percent	No Change in the Design Grade of the Asphalt Binder
	20 -30 percent	Select Virgin Binder one grade softer than normal (e.g. select a PG64-34 if a PG70-28 is the design grade*
PGXX-16	< 15 percent	No Change in the Design Grade of the Asphalt Binder
	15 - 25 percent	Select Virgin Binder one grade softer than normal (e.g. select a PG64-34 if a PG70-28 is the design grade*
PGXX-10 or higher	< 10 percent	No Change in the Design Grade of the Asphalt Binder
	10 - 15 percent	Select Virgin Binder one grade softer than normal (e.g. select a PG64-34 if a PG70-28 is the design grade*

* Do not select any grades lower than PG XX-34.

F. Meet all the requirements of Section 02741 and the following:
   1. Average wheel impression not to exceed 10 mm in 20,000 passes when tested in accordance with Hamburg Wheel Track Testing of Compacted Bituminous Mixtures, UDOT Materials Manual of Instruction Section 990.
      a. Provide to UDOT Central Laboratory sufficient mix to preform test. Allow ten days for results.
   2. Meet all the requirements of Aggregate Properties of Section 02741 for the virgin aggregate portion of combined virgin and RAP aggregate.

G. Complete the mix design for the combined virgin and RAP materials following Superpave volumetric mix design procedures. Use an AMRL accredited laboratory for the design.

H. Provide the following for the combined virgin and RAP materials:
   1. Gradation
   2. Asphalt content
   3. RAP content

PART 3 EXECUTION

3.1 RECLAIMED MATERIAL

A. Crush or screen the reclaimed material to be used for recycle to pass a 1-1/2 inch sieve.
   1. Construct stockpile platforms in such a way to prevent intrusion of subgrade materials into RAP.
   2. Provide adequate drainage for the stockpile site.
   3. Use separate cold feed bins for each stockpile.
   4. Use screened reclaimed material free of organic materials, soil, or other foreign substances.

END OF SECTION

Supplemental Specification
2005 Standard Specification Book

SECTION 06055M

TIMBER AND TIMBER TREATMENT

Add the following to Part 1, Article 1.2:

F. Southern Pine Inspection Bureau (SPIB) Standard Grading Rules

Delete Article 2.2, paragraph A and replace with the following:

A. Wood posts that comply with the current WWPA Standard Grading Rules or SPIB Grading Rules.

Delete Article 2.2, paragraph D and replace with the following:

D. Guardrail Post:
   1. Surfaced or rough-sawn posts and offset blocks.
   2. Use only one species of wood on any one project.
   3. Douglas Fir-Larch, Hem-Fir, Lodgepole Pine, Ponderosa Pine, or Southern Yellow Pine.
   4. Grade No. 1 or better.